Tampere University

KOYE KASSA GETAHUN

Research University Vision in the Leadership Context

Insights from Bahir Dar University, Ethiopia

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DEDICATION

This dissertation is dedicated to my late, beloved mother, Tuafitu Astatkie, who was not only my real mother but also a wise advisor. Mom, you always told me to be honest, truthful and committed to my own stand while with no harm to others. You believed I would be leading a safe life through hard work.

As a last-born son, you always considered me a little child while I was growing up and even had my own child. I am always surprised by your patience and pro-activeness. You had been my real personality model. You taught me to be kind and positive to others regardless of their demographic background. I know how much you would have been happy if you had seen my achievement. I have never seen any mother like your living being a real mother. I love you here forever.

ABSTRACT

This study examines the strategy and vision of Bahir Dar University (BDU), Ethiopia, of becoming a research university and the path towards realizing this vision within the context of the university's leadership. The purpose of the study is to expand understanding of a strategic research university's vision and a path to becoming a research university in the context of Ethiopia. The study employed Bolman and Deal's well-known–four-frame model in organisational research — a leadership perspective that emphasises the importance of viewing organisational issues via four separate frames or 'lenses' (structural, human resource, political, and symbolic) — rather than focusing on a single perspective. Effective leaders should tailor their approach to the situation at hand. The study utilised a qualitative case study design. The collected data included institutional strategy documents and unstructured interviews. The participants included four top and 12 middle-level academic leaders.

A research university is defined as an institution that places a strong emphasis on research as a fundamental part of its mission and encompasses research centres, problem-solving research, research-led teaching, and postgraduate programmes. It is characterized by academic staff with strong research backgrounds, adequate infrastructure for quality teaching, research, and community services, and good governance. The institutional strategies indicated that research university vision holds three-fold significance for BDU, in leveraging the university's competitive advantages, enhancing research performance, and contributing to national socio-economic development in Ethiopia.

The study revealed that the interviewed BDU leaders's perceptions are aligned with all four leadership frames, indicating the presence of multiframing. From the structural frame's perspective, leaders perceived clarity and focus on strategic themes such as the expansion of postgraduate programmes, the initiation of a mega research approach (theme-based and multidisciplinary research projects, involving researchers from many study disciplines, female staff members, postgraduate students, and stakeholders), and the establishment of standardized laboratories and research centres. However, the research also identified structural challenges such as lack of full autonomy, bureaucracy, and inadequate incentive packages. The leadership perceptions that resort under the political frame are the mobilization of resources through internationalization and partnerships, the equitable distribution of budgets and resources, negotiation, and programme accreditation. Inadequate infrastructure and a limited research budget were identified as the major political frame- related challenges. From the perspective of the symbolic frame, the leadership perceptions are enhancing the research culture by organising forums, conferences, seminars, and incentives for publishing, in addition to sharing the university's vision with the university community and external stakeholders. A significant challenge related to the symbolic frame was a poor research culture.

Along with the aforementioned internal challenges, external challenges such as lack of attention paid to research universities by the Ministry of Education, limited autonomy, socio-political instability, a high graduate unemployment rate, local businesses' lack of interest in and capability to form partnership, competition for limited resources, and a foreign currency shortage were identified.

The study concludes that a research university, prioritizing research as a core mission, should have faculty with strong research credentials, excellent facilities for teaching, research, and community service, and good governance. The research university vision is crucial for leveraging competitive advantages, contributing to socio-economic development, and enhancing national and global visibility. The challenges identified in this study highlight the need to revisit Bolman and Deal's frame model so that internal and external challenges can be addressed comprehensively as part of the organisation's development.

The study recommends that higher education leaders should strive to create globally comparable research universities, share the vision with stakeholders, and establish attractive incentives for developing such institutions. The progress and impact of these measures should be evaluated, and based on the findings, further actions should be taken and strategies developed—informed by the four-frame leadership model—to address internal challenges. Likewise, discussions with authorities regarding university autonomy are necessary for managing external challenges.

Keywords: research university, strategy, vision, path, leadership, leader, Bahir Dar University, Ethiopia

TIIVISTELMÄ

Tämä tutkimus kohdistuu etiopialaisen Bahir Dar yliopiston strategiaan, tutkimusyliopistovisioon ja yliopiston etenemispolkuun kohti tätä visiota. Tarkastelu tehdään johdon näkökulmasta. Tarkoituksena on laajentaa ymmärrystä strategisesta tutkimusyliopistovisiosta ja polusta tutkimusyliopistoksi Etiopian korkeakoulukontekstissa. Tavoitteena on tutkia tutkimusyliopistovision strategista merkitystä ja etenemiskeinoja sen saavuttamiseksi Etiopian olosuhteissa.

Tutkimuksessa hyödynnettiin organisaatiotutkimuksissa tunnettua Bolmanin ja Dealin neljän johtamiskehyksen mallia. Malli korostaa organisaation ilmiöiden tarkastelua neljän erillisen kehyksen (rakenteellinen, henkilöstö, poliittinen ja symbolinen) avulla sen sijaan, että keskityttäisiin vain yhteen näkökulmaan. Mallin mukaan tehokkaiden johtajien tulisi valita kulloiseenkin asiaan ja tilanteeseen soveltuva kehys.

Tutkimus oli laadullinen tapaustutkimus. Aineistoon sisältyi tapausyliopiston strategiadokumentit ja johdon haastattelut. Tutkimukseen haastateltiin neljä ylimmän johdon ja 12 keskijohdon edustajaa.

Tutkimusyliopistolla tarkoitettiin korkeakoulua, joka priorisoi vahvasti tutkimusta osana perustehtäväänsä ja sisältää tutkimuskeskuksia, ratkaisukeskeistä tutkimusta, tutkimusperustaista opetusta sekä jatko-opinto-ohjelmia. Sille on ominaista akateeminen henkilökunta, jolla on vahva tutkimustausta, riittävä infrastruktuuri laadukkaan opetuksen, tutkimuksen ja yhteiskunnallisen palvelun toteuttamiseen sekä hyvä hallinto. Strategiat osoittivat, että tutkimusyliopistovisio oli Bahir Dar yliopistolle kolmella tavalla merkityksellinen. Se auttaa hyödyntämään yliopiston kilpailuetuja, vahvistaa tutkimustoimintaa ja edistää Etiopian kansallista sosioekonomista kehitystä.

Tutkimus osoitti, että haastatellut Bahir Dar yliopiston johtajat tulkitsivat tutkimusyliopistovisiota neljän johtamiskehyksen avulla, mikä viittaa niin sanotun monikehyksisen johtamisajattelun esiintymiseen. Rakenteellisesta näkökulmasta johtajat pyrkivät varmistamaan selkeyttä ja keskittymistä strategisiin teemoihin, kuten jatko-opinto-ohjelmien laajentamiseen, laajamittaisen tutkimusotteen käynnistämiseen (teemapohjaiset ja monitieteiset tutkimushankkeet, joihin osallistuvat eri alojen tutkijat, naisopettajat, jatko-opiskelijat sekä muut sidosryhmät) ja standardoitujen laboratorioiden sekä tutkimuskeskusten perustamiseen. Tutkimuksessa tunnistettiin myös rakenteellisia haasteita, kuten puutteellinen itsenäisyys, byrokratia ja riittämättömät kannustinjärjestelmät.

Poliittisen kehyksen näkökulmasta esiin nousivat resurssien mobilisointi kansainvälistymisen ja kumppanuuksien kautta, budjettien ja resurssien oikeudenmukainen jakaminen, neuvottelut sekä

koulutusohjelmien akkreditointi. Puutteellinen infrastruktuuri ja rajalliset tutkimusmäärärahat tunnistettiin keskeisiksi poliittiseen kehykseen liittyviksi haasteiksi. Symbolisesta näkökulmasta johtajat tunnistivat tutkimuskulttuurin vahvistamisen, joita heijastelivat muun muassa foorumit, konferenssit ja seminaarit sekä kannusteet julkaisemiseen. Tämän lisäksi yliopiston tutkimusyliopistovisiota jaettiin niin yliopistoyhteisön kuin ulkoisten sidosryhmien kanssa. Keskeinen symboliseen kehykseen liittyvä haaste on heikko tutkimuskulttuuri.

Sisäisten haasteiden lisäksi tunnistettiin myös ulkoisia haasteita, kuten opetusministeriön riittämätön panostus tutkimusyliopistoihin, rajallinen autonomia, yhteiskunnallinen ja poliittinen epävakaus, korkea valmistuneiden työttömyysaste, paikallisten yritysten heikko kiinnostus ja kyky solmia kumppanuuksia, kilpailu niukoista resursseista sekä ulkomaanvaluutan puute.

Johtopäätöksenä esitetään, että tutkimusyliopistossa, joka asettaa tutkimuksen ydintehtäväkseen, tulee olla henkilöstöä, jolla on vahva tutkimustausta, erinomaiset puitteet opetukselle, tutkimukselle ja kolmannelle tehtävälle sekä hyvä hallinto. Tutkimusyliopistovisio on ratkaisevan tärkeä kilpailuetujen ja sosioekonomisen kehityksen edistämiseksi sekä kansallisen ja kansainvälisen näkyvyyden vahvistamiseksi. Tässä tutkimuksessa tunnistetut haasteet osoittavat tarpeen tarkastella Bolmanin ja Dealin kehysmallia uudelleen, jotta ulkoiset haasteet voidaan ottaa kokonaisvaltaisesti huomioon osana organisaation kokonaisvaltaista kehittämistä.

Tutkimus suosittelee, että korkeakoulujen johtajien tulisi pyrkiä luomaan maailmanlaajuisesti vertailukelpoisia tutkimusyliopistoja, jakaa visio sidosryhmien kanssa ja luoda houkuttelevia kannustimia tutkimusyliopiston kehittämiseksi. Näiden toimien edistymistä ja vaikutuksia tulisi arvioida sekä niiden perustalta jatkaa toimenpiteitä ja kehittää neljän johtamiskehyksen malliin perustuvia strategioita sisäisten haasteiden ratkaisemiseksi. Samoin tarpeellisia ovat keskustelut viranomaisten kanssa yliopistojen autonomiasta ulkoisten haasteiden hallitsemiseksi.

Asiasanat: tutkimusyliopisto, strategia, visio, polku, johtajuus, johtaja, Bahir Dar yliopisto, Etiopia

USE OF ARTIFICIAL INTELLIGENCE TOOLS

The artificial intelligence (AI) tool used in this dissertation and its intended purposes are described below.

I used the free version of Microsoft Copilot as an AI tool in my dissertation work. The aim of incorporating AI was to enhance the language of the text through paraphrasing and rephrasing paragraphs and sentences as well as generating new sentences or paragraphs while acknowledging their original sources. The AI tool was employed specifically in the acknowledgements and abstract, and in the theoretical framework, methodology, discussion, and conclusion and recommendation chapters. 'I am aware that I am totally responsible for the entire content of the thesis, including the parts generated by AI, and accept the responsibility for any violations of the ethical standards of publications.'

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LIST OF ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Meaning
AU	Academic Unit
BDU	Bahir Dar University
BPR	Business Process Re-Engineering
CSC	Civil Services Commission
FGD	Focus Group Discussion
HEIs	Higher Education Institutions
HER	Higher Education Reform
HERANA	Higher Education Research and Advocacy Network in Africa
MoE	Ministry of Education
MoFED	Ministry of Finance and Economic Development
NAS	National Academy of Sciences
PG	Postgraduate
RU	Research University
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WCUs	World-Class Universities

1. INTRODUCTION

This chapter addresses the research background, the problem statement, the significance of the study, the delimitation of the study, the definition of key terms, and the organisation of the dissertation.

1.1. Research Background

Research universities, though conceptualized differently by various authors, are primarily characterized as higher education institutions (HEIs) that emphasise graduate education and research. They are institutions devoted to the creation and promotion of multidisciplinary knowledge. Altbach (2013, p. 316) describes research universities as 'academic institutions committed to the creation and dissemination of knowledge, in a range of disciplines and fields, and featuring the appropriate laboratories, libraries, and other infrastructures that permit teaching and research at the highest possible level.' Research universities play a significant role in the social and economic development of nations by producing knowledge and the transfer of technology, in developed as well as developing nations (Mohrman & Baker, 2008). Similarly, Altbach (2009) indicated that research universities help nations to educate the individuals necessary for technology, leadership, and the production of new knowledge.

Becoming a research university involves engaging in international scholarship and contributing to knowledge that is relevant both globally and locally. In this regard, Altbach (2007) described a research university as an intricate and multidimensional organisation that serves numerous social roles. On the one hand, the university strives to be competitive and gain a reputation for its research products, competent staff, and competent graduates; on the other hand, it contributes to local, regional, and worldwide societal development. Thus, being a research university means being at the peak of the higher education ladder.

Moreover, research universities, as globally competitive institutions, are considered world-class universities. According to Salmi (2009), world-class universities are characterized as institutions that produce exceptional outcomes, including extremely desirable among graguates, world-leading research, and technology transfer. The author asserts that world-class universities should meet three supportive groups of criteria: (a) they should have a sufficient number of talented academics and students, (b) they should provide ample resources to create favourable settings that facilitate quality

teaching and outstanding research activities, and (c) they should adopt conducive management characteristics that promote strategic vision, creativity, and flexibility, allowing universities for making decisions and manage assets free of bureaucratic limitations. Similarly, Altbach (2009) described the nature of research universities as encompassing full-time staff, academic freedom, attractive salary structures, performance-based incentives instead of just seniority, long-term employment, honesty, and an academic and research culture.

Research universities are institutions that rely on establishing certain qualities to attract resources such as competent staff and students, research grants, and partnerships through their quality features. Therefore, the pursuit of becoming a research university can present both challenges and opportunities for obtaining resources. Meeting the necessary criteria to be recognised as a research university may be challenging but it ultimately serves as a means to attract valuable resources.

Various scholars argue that, although both are centres of the knowledge economy, research universities and teaching universities possess distinct characteristics. Altbach (2013) summarized the common features of successful research universities as follows: any effective universities are by definition an integral component of a distinct academic system, where they occupy the highest rank in the academic ladder and get the support they need to carry out their purpose. Unlike in the United States, most research universities worldwide are public institutions. These institutions are costly to maintain, necessitating more funding than other types of universities. This funding is essential for attracting top-tier faculty and students, as well as for establishing the required infrastructure for cutting-edge research and teaching.

Although research universities are visible and highly ranked globally, they face various challenges. These challenges can be categorized into the need for external resources and the need for internal capacity to determine strategies and address challenges. For instance, in 2012, the United States National Academy of Sciences (NAS, 2012) reported that two groups of its reporting committee identified challenges faced by American research universities. The first group noted that business partnerships among universities, the federal government, and states had weakened, with businesses and industries dismantling corporate research laboratories. The second group identified issues such as the efficiency of university research administration, the effectiveness of doctoral education, and the strength of the talent pipeline as factors affecting university operations.

Likewise, Altbach (2009) identified various challenges faced by all research universities, including the need for significant funding, the research culture, commercialism and market interests, and the conflict between autonomy and accountability. The challenges mentioned by the NAS and Altbach indicate that research universities are highly dependent on external resources (e.g., government,

research institutions, and industries). Therefore, to be successful, research universities are expected to secure diversified and sustainable resources and operate autonomously. Without autonomously securing varied and sustainable resources, it will be challenging for a research university to be competitive and ensure its existence. In addition to the problem of obtaining external resources, research universities' internal capacity and autonomy to strategically lead their operations can be considered another serious challenge.

Although research universities are uncommon in Africa, they are crucial for social and economic development (Bunting, et al, 2017; Altbach, 2013; Brodhag, 2013; Salmi, 2009). Establishing such universities and differentiating the higher education system is essential for improving learning quality, research, and international competitiveness. However, significant achievements have been limited. The most notable effort is the Higher Education Research and Advocacy Network in Africa (HERANA) project, initiated in 2007. The eight universities involved in HERANA aim to achieve high academic ratings, excel in research, and contribute to national and regional development.

Despite their developments, research universities in Africa encounter various challenges. Adu (2020) highlights that insufficient funding and resources hinder the development of necessary infrastructure for research, teaching, and student support. Additionally, the research often lacks relevance and impact, failing to address local needs and contribute to national development. Similarly, Sawyerr (2004) points out that outdated infrastructure, unsupportive policies, and governance, along with inadequate research capacity among staff, significantly impede the universities' effectiveness and their ability to establish international collaborations and networks.

Ethiopian universities, as part of global trends, reflect the dynamics of HEIs. Despite the relatively young age of higher education in Ethiopia, several changes have been observed at both the policy and university levels that align with current global dynamics. Ethiopian higher education has advanced dramatically in the last 20 years with respect to the number of universities, academic staff, enrolment, and programme diversity. For instance, the number of public universities has grown from two in 1996-97 to 46 in 2017-18. However, the expansion of higher education in Ethiopia has primarily emphasised teaching universities rather than research universities. Even the growth in postgraduate student enrolment is slower than that in undergraduate enrolment.

Ethiopia's goal of becoming a lower-middle-income country over the next two to three decades is starting to take shape through various supportive policy and strategy directions. Recognising the relevance of higher education for national development, the Ministry of Education (MoE) has initiated a higher education reform focusing on expanding access, diversifying programmes, and maintaining the quality of teaching, research, and community services delivered by universities. As an

aspect of the higher education reform (HER) and following a situational analysis of their contexts, universities in Ethiopia have developed their own visions.

Following the HER guidelines, Bahir Dar University (BDU) has been engaged in a reform process since 2008, identifying priorities and setting itself the 'vision of becoming one of the ten premier research universities in Africa by 2025'. The Ethiopian Ministry of Science and Higher Education (MoSHE) divided universities into three categories in 2020 after conducting a study on higher education differentiation: research universities, universities of applied sciences, and comprehensive universities. Following this classification and the achievements gained and challenges identified, BDU revised its vision for the next strategic planning period and developed a new ten-year strategic plan (2020–21to 2029–30). Consequently, the original 'vision of becoming one of the top ten research universities in Africa by 2025' was updated to 'becoming one of the leading research-intensive universities in Africa and the first choice in Ethiopia by 2030' (BDU, 2020, p. 5).

Research universities are conceptualized differently across contexts. Some believe that research universes are solely focused on research, but they also play a crucial role in teaching. According to Kerr (2001), these institutions are engaged in both research and teaching, employing full-time academics with doctoral degrees. Similarly, the MoSHE (2020) defines research universities as institutions that conduct research and offer teaching, with an emphasis on graduate studies. Bahir Dar University supports the MoSHE's definition of a research university, emphasising the importance of both teaching and research, with a strong focus on research and postgraduate programmes.

Regardless of other factors, in an internal capacity, the role of leadership is vital in moving towards a research university through successfully securing sustainable resources and autonomy. Leaders are considered as change agents, and their ability to lead an institution determines whether it succeeds or fails. In this regard, Yukl (2013) recognised change leadership practice among the most significant and demanding duties of managers and administrators. Yukl further elaborated on the roles of managers and administrators as 'guiding, encouraging, and facilitating the collective efforts of members to adapt and survive in an uncertain and sometimes hostile environment' (p.76). Gumus et al. (2018) reflected that leaders, particularly change-oriented leaders, are engaged in driving change by developing vision and encouraging creative thinking and risk-taking in the group.

According to Ogawa and Scribner (2002), leadership has a major impact on how well an organisation performs. The integration of several factors, including logistics, technology, financial and technical resources, and human resources, is crucial for an organisation to succeed. These factors compel organisations to look for the most qualified people to govern and lead the institution. Organisations

expect particular qualities in leaders that can help them achieve their objectives. According to Yukl (213), major organisational change is often steered by the executive, while the other organisation members play key roles in the effectiveness of the change. Therefore, a leader is a persuasive personl who assumes the leadership role, while other members of the management team are considered followers within the organisation.

Today, universities operate in a dynamic environment that requires a leader's capacity to recognise the internal and external context of the university and act accordingly. To do so, higher education leaders are required to adopt new methods of doing things and manage the necessary changes to transform a university. For instance, Usoh et al. (2023, p. 854) describe the roles of leaders in driving change, stating that 'leaders should create and share vision, develop a strong partnership from those who can contribute to change, improve competence, and reinforce new structure and culture which appropriate to the new environment, by encouraging motivation, communication, participation, empowerment and commitmen.' Arntzen (2016) reflects that to effectively drive a change in higher education leaders play a role of balancing academic and administrative activities. Likewise, Collins (2014) emphasise that it is crucial for leaders to adapt to technological advancements and societal changes while ensuring institutional stability and fostering innovation

Different leaders adopt different leadership styles. In universities, the quality of leadership varies across different disciplines. No single style of leadership is universally appreciated by all university disciplines. Instead of adhering to a single style of leadership, effective leaders are expected to consider a university's functions from different perspectives (Shattock, 2010). Similarly, Yukl (2013, p. 84) stated: 'Successful implementation of change in organisations requires a wide range of leadership behaviours. Some of the behaviours involve political and administrative aspects, and others involve motivating, supporting, and guiding people.' Therefore, to be successful, research universities need leaders who possess a comprehensive range of leadership dimensions and are responsive to all aspects of the university as an organisation. Leaders in research universities should view the university's functions through the structural, human resources, political, and symbolic lenses, enabling them to consider a certain issue from multiple perspectives.

As scholars such as Shattock (2010) and Yukl (2013) have argued, diversified leadership behaviours are far better than a single leadership behaviour in leading change in an organisation. Despite the various models proposed as frameworks to guide changes in education, Bolman and Deal's four-frame model was selected as the theoretical framework for this study. According to Bolman and Deal (2021), using multiple frames helps leaders to see the same subject through many angles or from many perspectives. The four frames (windows) of Bolman and Deal's model are the structural, human resources, political, and symbolic lenses.

The concept of a research university, although relatively new in the Ethiopian context, shares common features and challenges with research universities in Africa and other parts of the world. A thorough understanding of the nature of a research university in its setting, as well as the focus and commitment of leaders towards its realization is found to be essential. Therefore, this study aims to investigate the responsiveness and practices of BDU leaders in achieving the attributes of the research university vision outlined in their strategic plans, as well as the challenges they face. The specific objectives of the study were to:

- examine the articulation of Bahir Dar University's research university vision and the path towards it in the institution's strategic documents,
- investigate the thematic perceptions of academic leaders regarding Bahir Dar University's research university vision, and
- identify the major challenges academic leaders perceive in achieving the vision of a research university.

The Bolman and Deal four frame model was used to analyse both the leadership activities and challenges encounterd in the path journey towads the vision of research university. The study's conceptual framework is illustrated as follows.

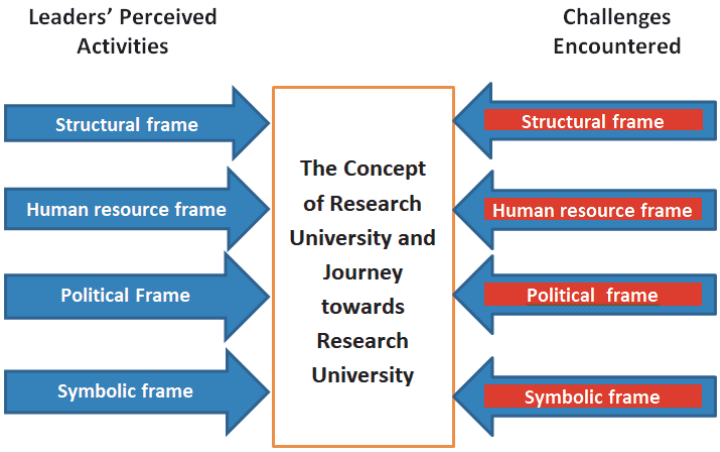

Figure 1. Conceptual framework of the study

1.2. Statement of the Problem

Many public universities in Africa are responding to external rewards by striving to be research-led universities (Cloete et al.,2018). Similarly, the desire to succeed the rank of a research university is becoming a common goal among HEIs in Ethiopia. Various universities envision becoming research universities, even though they differ in terms of their reputation, research output, and founding year.

In Ethiopia, the development of higher education leadership has been the focus in the education sector development programmes (ESDP II, III, IV, and V), and the education strategy centre in the MoE is providing continuous on-the-job leadership capacity-building training. Ayele (2020) also argued that effective leadership by top management plays a vital role in the transformation of Ethiopian higher education. Therefore, in order to achieve the vision of a university, effective leaders are required, among other factors.

Like other African universities, BDU strives to be dedicated to generating and disseminating of knowledge using research and publication, focusing on the diversification of disciplines and creating laboratories, libraries, and other infrastructure to international standards in order to provide quality teaching and research. Unless BDU is able to achieve these goals, its change efforts will be limited, and the change process will not be comprehensive.

Studies on African higher education commonly focus on general reforms, leadership, and governance issues rather than addressing issues related to research universities. Govender and Rampersad (2016) studied the process of change in the higher education context in South Africa and found that, as organisations adapt to change, effective communication with their employees is vital. However, the South African leaders' capacity for internal communication could be stronger. Similarly, a study by Abugre (2018) explored the challenges facing higher education in Ghana. Abugre identified six major challenges: 'deficient institutional policies,' 'deficient infrastructure,' 'students' numbers versus teaching loads,' 'human resource factors,' 'research quality and challenges,' and 'bureaucratic and inconsistent administrative environment.' However, studies on research universities in Africa are rare, and more research is required.

Numerous studies on Ethiopian higher education have not addressed research universities. Despite efforts to improve leadership in innovation and change management, leaders are not meeting expectations. The ESDP IV (MoE, 2010) notes that the higher education management and leadership system is inadequate. Yizengaw (2003) highlighted poor leadership quality and lack of commitment as major challenges. Additionally, Yizengaw (2004) found that regardless of significant public funding, higher education institutions' research engagement remains low and has not significantly contributed to the nation's socio-economic development.

Woldegiyorgis (2013) identified significant issues in Ethiopian higher education institutions (HEIs) related to staff qualifications, satisfaction, motivation, quality management, and autonomy. Mehari (2010) studied governance in Ethiopia's higher education, focusing on the relationship between the government and HEIs, particularly at Mekelle University. He found that reforms are mainly state-

driven in a top-down manner, which compromises the autonomy of universities and leads them to follow government directives.

Most studies on change in Ethiopian higher education have focused on Business Process Reengineering (BPR). Lerra (2015) investigated the university community's views on challenges to transformative change at Wolaita Sodo University, finding that transformational behaviors by academic leaders were rare. The study highlighted a lack of institutional context analysis and insufficient efforts to prepare and motivate the university community for change. Similarly, Gebremeskel (2018) studied the impact of organisational culture on management innovation BPR at Bahir Dar University. He found that while organisational culture is crucial for success, it poses significant challenges to implementing BPR. Key issues included poor understanding of the innovation, low commitment and sense of ownership, and a disconnection between middle and top-level leaders. Like studies by Lerra (2015) and Gebremeskel (2018), a more recent study by Gebretsadik (2022), like Lerra (2015) and Gebremeskel (2018, studied the role of middle- and lower-level academic leaders in fostering change readiness at Dire Dawa University. He found a significant correlation between change leadership and academic staff's readiness for change, noting that low readiness led to strong resistance.

Despite these findings, there exists a shortage of research on issues concerning the vision of research universities in the Ethiopian context. Moreover, most of the above studies did not explicitly employ a specific theoretical framework. Hence, the present study is important for two reasons. First, BDU should introduce and manage appropriate monitoring and evaluation systems in order to create a research culture, establish partnerships, develop human resources, distribute resources fairly, and handle conflicts effectively. This research study indicated that the perceived leadership activities were aligned with Bolman and Deal's four frames of leadership. Second, research on research universities in Africa, particularly in Ethiopia, is needed on both at theoretical and empirical level. Thus, this research will enhance knowledge about the conception of the vision of a research university and the path towards in in the context of academic leaders using BDU as a case study.

The purpose of the study is to expand understanding of a research university's vision and a path to becoming a research university in the context of Ethiopian higher education context. With this purpose, the study aims to understand the concept of the research university as a phenomenon and the path towards a research university vision within the institutional leadership context at BDU, using Bolman and Deal's (2021) four-frame model. To achieve this, the following research questions have been formulated:

1. How are the research university vision and the path towards it articulated in Bahir Dar University's strategic documents?
2. How are the research university vision and the path towards it perceived among academic leaders? What are the major challenges academic leaders perceive in the journey towards the research university vision?

The above research questions were investigated by using using Bolman and Deal's four-frame model as the theoretical framework. The first research question emphasises examining how BDU articulates its vision and the path to achieving it in its strategic documents. The second research question explores how top- and middle-level university leaders understand the research university vision, the significance of this vision, the activities it encompasses, and the challenges they face in establishing structures to support research. These structures include policies, procedures, rules conducive to research, enhancing human resources by increasing the quantity and quality of research faculty, navigating politics to gain staff buy-in, resolving conflicts and forming partnerships with external stakeholders, and employing symbolic frames by acting as charismatic role models and fostering a research culture.

1.3. Significance of the Study

By exploring university leaders' perceptions and actions, the study provides valuable leadership insights on research university vision and the path to achieve it. The findings of the study can also be utilised by BDU leaders and staff to reflect on their practices and consider recommendations. Given the lack of prior studies on the visions of research universities in Ethiopia, this research addresses the gap by exploring the conception of research university vision and the pathway towards it within the context of Ethiopian higher education institutions, utilising Bolman and Deal's model. In addition, the study results indicate how the use of Bolman and Deal's four-frame approach adds theoretical significance to understand the research university vision and its path journey. Furthermore, the study highlights the need for policy revisions by ministerial offices (MoE, CSC, and MoFED) in HEIs.

1.4. Delimitation of the Study

This research study examines the responsiveness of academic leaders at Bahir Dar University towards the realization of the research university vision. While the term 'responsiveness' can have various interpretations, this study specifically aims to investigate how university leaders at different levels articulate their roles in facilitating the transition towards a research university model. The key areas explored in relation to leaders' responsiveness include their understanding of the concept of a research university within their context: their explanation of the fundamental nature of a research university, the significance of the research university vision, the specific activities they are engaged in, and the challenges they face.

This research focuses on investigating the perceptions of university leaders, the major activities they perform, and the significant challenges they face in their journey towards a research university vision. The study explores how the top and middle-level leaders of the university perceive the role of institutional leadership in achieving this vision.

The study addresses specific issues related to leaders' understanding of the concept of a research university within a leadership framework. This includes identifying the basic attributes of a research university, emphasising the relevance of setting a strong vision for a research university, outlining the specific areas of focus or activities performed, and addressing the challenges encountered. Since this study was carried out at a single university and the data were analysed at an institutional level, the findings may not be directly applicable to other institutions. The participants in the research study were top- and middle-level leaders, while department-level leaders and academic staff were not included. The research was delimited to a qualitative approach and analysis at the institutional as well as academic leaders' level.

1.5. Organisation of the Dissertation

This dissertation is structured into seven chapters. Chapter one consists of the introduction, research background, problem statement, research questions, significance of the study, delimitation of the study, and organisation of the dissertation. Chapter two reviews the relevant literature, while chapter three presents the theoretical framework of the study. In chapter four, the methodology is discussed, and chapter five presents the results, divided into two sections: the first comprises the results of the document analysis and the second the results of the interview data. Chapter six discusses the findings, while chapter seven presents the conclusions, recommendations, implications, limitations of the study, and suggestions for further study.

2. LITERATURE REVIEW

The literature review began by searching online sources using the following research phrases: 1) the conception of a research university and the importance of the research university vision and 2) the leaders' role in the journey towards achieving the research university vision and the challenges they encounter along the way. Publications were reviewed from more broadly available literature resources on the above issues, focusing on the unique characteristics of universities in general and research universities in particular, the qualities of higher education leaders to manage change, alternative theories/models of higher education change leadership globally, in Africa as well as in the Ethiopian context. Studies written in English that applied different methods (qualitative, quantitative, and mixed) were included. The selected literature sources were searched using the following databases: Tampere University Library, Bahir Dar University Library, Google Scholar, and ResearchGate, using keywords, authors, and previous research directly and indirectly (via references) and cited references. Mendeley Reference Manager was used as the referencing tool for this study.

This literature review chapter discusses the following three major topics: features of higher education organisations, the classification of universities, the concepts and characteristics of research universities in the West, Africa, and Ethiopia. It also covers the major challenges faced by research universities, higher education leadership; the nature of leadership in higher education and the role and quality of leadership in establishing research universities; and research related to higher education change in Ethiopia.

2.1. Features of Higher Education Organisations

Before discussing the classification of universities, research universities, and higher education leadership, it is important first to examine the context and distinctive features of higher education organisations. While higher education organisations share several general features with other types of organisations, such as structure, stakeholders, resources, decision-making processes, traditions, culture, leadership responsibilities, operating within a larger environment, and bureaucratic work structures and procedures, they have distinct characteristics, such as traditions of autonomy, loosely coupled elements, structural complexity, a range of stakeholders and cultures, multiple sometimes ambiguous purposes or mission, an unclear bottom line, distinct internal managerial and academic units with differing core values, and a lack of focus on succession and the change planning (Ruben et

al., 2016). A more thorough discussion of the basic features of higher education institutions can be found in the paragraphs that follow.

One distinguishing feature of higher education organisations is their autonomy. Unlike other business and corporate organisations, higher education staff members have far more freedom, particularly in their classrooms (Rowley & Sherman, 2003). Despite its limited implementation at the institutional level, Ethiopian HEIs are given autonomy and academic freedom by the Higher Education Proclamation (FDRE, 2009, 2019). The boundaries of academic freedom and institutional autonomy are also outlined in the Proclamation. For instance, every institution is expected to practice academic freedom in the execution of its mission while adhering to globally accepted best practices, foster a culture of social responsibility within its academic community, and regulate itself according to the Proclamation and global best practices.

According to the Higher Education Proclamation FDRE (2019), all public institutions are currently possessed the required autonomy to: a) 'develop and implement relevant curricula and research programmes' b) establish 'its organisational structure and enact and implement internal rules and procedures, and select, through a transparent system of competition, academic and other staff and designate or determine their responsibilities based on institutional requirements and expectations of performance and quality of work;' c) manage 'its personnel based on the provisions of this Proclamation and the principles of other applicable laws;' d) 'nominate the president and vice presidents and select and appoint leaders of academic units and departments, as provided for by this Proclamation;' and e) 'generate and utilise other incomes to support its mission through this Proclamation and other relevant laws and regulations.' Moreover, by law, every public institution is expected to exercise its autonomy to guarantee legality, efficacy and productivity, openness, justice, and responsibility. Moreover, it seems that the MoE recognises the importance of autonomy and intends to make universities autonomous as outlined in the new education and training policy. The new policy states 'Government Higher Education Institutions will develop a system to become autonomous to enhance their national and international competitiveness' (FDRE, 2023, p.11).

Individual academic freedom is viewed in terms of using the discipline as a benchmark (Ramsden, 1998). Autonomy and academic freedom for individual faculty are equally important at the institutional level. The academic freedom and autonomy of an individual staff of higher education organisations, though not explicitly addressed in the Proclamation, are covered in legislation at the university level. The BDU Senate Legislation, for example, states that:

> An academic staff member has the right to promote and permit an atmosphere of free, rational, and dispassionate inquiry concerning issues relevant to the subject matter of his course, including, where appropriate, discussions on controversial points and the presentation of

> particular views thereon without, however, forcing the assumption that these issues are settled in advance or the assumption that there is one right view of the issue to the exclusion of open and intellectually disciplined discussion of any other relevant views. (BDU, 2020, p. 19)

Unlike a 'corporate' or 'managerial' organisational culture, universities have a 'collegial' and 'professional' character (Vuori, 2011; Beerkens & der Hoek, 2022). Collegiality involves decision-making by an 'academic collegium', distinct from administrative and managerial decision-making in a typical organisation. However, it is important that collegial decision-making processes are clear. Collegiality refers to an academic tradition where decisions are made through consensus-seeking in joint meetings, regardless of differences in qualifications and seniority among faculty members. What guides this type of decision-making is the strength of an argument, emphasising democratic decision-making and a comprehensive egalitarian organisational culture. Collegial governance can be regarded as an academic oligarchy (Clark, 1986; Trowler, 2010).

Scholars are divided on the issue of collegial decision-making. Its opponents argue that collegiality needs to be strengthened to make timely decisions in light of higher education's contemporary intensity, dynamism, and internal and external environments. Ramsden (1998, p.23) criticized collegiality as 'slow, inward-looking, its procedures are unwieldy. It exudes an air of protective self-interest'.

On the contrary, the proponents of collegial decision-making argue that its effectiveness depends on people's commitment, and that it yields positive results, particularly in 'academic matters or to hard decision-making while reasons need to be exposed to rational analysis and argumentation' (Vuori, 2011, p.46; Shattock, 2003; Birnbaum, 2004.) Birnbaum (2004, p. 8) reacted to this critique concerning the slowness of shared governance as follows: 'The complaints are not really about the inability to move quickly; they are about the inability to change a university quickly into something else.' Birnbaum argued that shared governance may not be appropriate for every HEI but only for those situated at the absolute extreme of the academic spectrum.

The other unique characteristics of universities are that they are 'semi-anarchic' and 'loosely coupled' institutions (Weick, 1976; Cohen & March, 1975). This viewpoint of universities deviates from the assumption that they are logical and efficient organisations with established structures and precise objectives fundamental to strategic leadership. It has been argued that, being organised anarchies, universities have vague objectives, imprecise technology, and unpredictable participation(Cohen & March, 1975). Universities have various inconsistent and ill-defined preferences, in which members frequently need to agree about set organisational goals. Moreover, the organisation's processes need to be revised to fully understand the staff equally. As a result, staff members differ in their level of commitment to their organisation. This ultimately results in "ambiguity" in leadership situations as

well as well (Cohen & March, 1975). This forces leaders to use a 'garbage-can' approach rather than a rational one in which issues, answers, decision-making opportunities, and participants are all distinct parts that exist separately within an organisation.

According to the loosely coupled theory, organisations consist of different subsystems linked together either loosely or tightly, depending on the availability of shared features among the subsystems and the importance of those features to them. In this regard, as noted by Weick (1976), loosely coupled organisations are those in which the identity of the subsystems are maintained. Technical coupling, authority, and responsibilities are what hold a tight organisation together. However, in academic institutions, such as universities, both systems seem to be loose. Organisations that are loosely coupled can respond to their surroundings more quickly and promote contextual reorganisation. Nevertheless, they are often resistant to top-down change, creating obstacles for organisational leaders (Glassman, 1973).

2.2. Classifications of Universities

Globally, universities are categorised into different levels based on various criteria. The classification systems for universities vary from country to country. For instance, in the United States, the Carnegie Classification System is used to categorize HEIs. This system, known as the Basic Classification, includes six categories of universities: 'associate's colleges; Doctorate granting universities; Master's colleges and universities; Baccalaureate colleges; special focus institutions; and tribal colleges' (Hunde et al., 2023,p.44). Since 1973; the Carnegie classification system has been continuously updated to reflect changes in higher education including the addition of new universities and the closure or merger of existing ones (The Carnegie Classification of Institutions of Higher Education, 2001).

According to Cheng (2004), HEIs in China are classified into four hierarchies: 'research institutions, research and teaching institutions, teaching institutions, and application oriented institutions' (Cai et. al., 2011, p.3; Cai & Yan, 2015, p.152). Research universities are at the highest level of the Chinese higher education system and are responsible for conducting research. Research and teaching institutions are at the second tier and concentrate on both research and teaching. The third tier comprises teaching institutions that primarily focus on teaching activities, with limited involvement in research. At the fourth tier, application-oriented institutions (often tertiary vocational colleges) provide two- to three-year undergraduate programmes (associate degrees).

Three types of HEIs exist in Germany:: universities, universities of applied sciences, universities of Cooperative Education, and colleges of art (Hüther & Krücken, 2018). According to Hüther and Krücken (2018), universities combine teaching and research (basic research) and offer a wide range of programmes in various disciplines, following the Humboldt model. Conversely, universities of

applied sciences concentrate on engineering, technical disciplines, economics, social work, and design, with a primary emphasis on applied research The colleges of arts and music offer programmes in arts, visual arts, drama, music, directing, production, and scriptwriting for theatre, film, and other media, as well as design, architecture, media, and communications.

Similarly, in Canada, research on Ontario universities identified four groups of universities: (1) the internationally competitive University of Toronto, (2) six research-intensive universities, (3) nine mostly undergraduate universities, and (4) four 'in-between' institutions (Martin & Linda, 2016).

According to Gupta (2022), in the United Kingdom (UK), universities are classified into five categories based on their foundation dates. The first category of UK universities is ancient universities, which are those found between 1096 and 1582 and have been operating successfully until the present day. These universities are housed in buildings that date back hundreds of years, including lecture halls and hallways. British and Irish medieval and early modern universities established prior to 1600 belong to ancient universities. Seven ancient universities—four in Scotland, two in England, and one in Ireland—are regarded as the oldest university still in existence.

The second category of universities in the UK is red brick or civic universities. An increasing demand for science and engineering curricula in the Industrial Revolution resulted in the founding of red-brick universities in the 19th century, mostly in industrial centres. Originally known as civic universities, they eventually became known as 'red brick' universities because of their distinctive architecture. One noteworthy aspect of these universities is that they accept students of any race or religion focusing on providing practical, real-world knowledge (Guthrie, 2024; Gupta, 2022)

The third category of universities is plate glass universities often known as 1960s universities. These universities were founded between 1963 and 1992 in response to the education reform-focused recommendations of the 1963 Robins Report on Higher Education. Plate glass universities were known for their progressive academic approach, experimenting with new teaching styles, curricula, examinations, and administrative methods. The name 'plate glass universities' is derived from their striking glass buildings and modern architectural style (Guthrie, 2024; Gupta, 2022).

The fourth category of universities consists of new universities, that is, polytechnics and metropolitan universities. These universities were established n the 1970s and 1980s to provide engineering, science, and technology-related skills to their students. These universities were officially recognised in 1992, with their primary objective being to prepare students for successful professional careers. Despite their recent university status, these institutions have experienced significant growth rates in contrast to more established UK universities (Gupta, 2022).

The fifth category of UK universities is known as the Russell Group universities, consisting of a group of 24 universities that have a prestigious status and are highly desirable by their graduats. These universities are renowned for their world-class research facilities, which have led to substantial government grants. They are estimated to generate two-thirds of the world's leading research and contribute about £85 billion to the economy. It is no surprise that they are often compared to the US Ivy League universities, given their exceptional academic standing (Gupta, 2022).

In France, higher education institutions are categorized into three types: universities, Grandes écoles, and specialized schools (Pickard, 2016). Universities, which are public institutions, provide academic, technical, and professional degrees to students who have earned a baccalauréat or its equivalent from another country. Licence, master, and doctoral (LMD) degrees are the three achievement levels that make up the framework in which degrees are awarded.

Grandes écoles are prestigious public and private universities that provide a three-year, more specialised programme in engineering, business, or public administration. A competitive exam score is one of the strict requirements for admission to grandes écoles. To sit for these exams, students need to obtain a baccalauréat and frequently finish a two-year course called course préparatoires, also known as prépas. A grand école grants a master's degree to its graduates.

Specialized schools, whether public or private prepare students for jobs in sectors like art, architecture, social work, and tourism (Lacroix & Maheu, 2015; Paradeise, 2017).

In Australia, as outlined by Moodie (2012), universities are classified into five groups. The first group of Australian universities is the 1960s–1970s universities. These institutions, as their name indicates, were founded between the middle of the 1960s and the 1970s, and they have historically been distinct from the more established capital city universities with modest research budgets. These universities were established by state governments (with assistance from the Commonwealth Government) in the capital cities of the continent to accommodate the demand for higher education. These universities' primary goal was to create a novel educational model that differed from that of conventional universities.

The second group of universities in Australia is the Australian Technology Network (ATN), a consortium of the country's five top innovative and enterprising universities, established in 1999 and focused on providing impactful technology solutions to improve the economy and society. Initially, the ATN was known as the Directors of Central Institutes of Technology (DOCIT), established in 1975. However, it was disbanded in 1982 due to differences in aspirations. These universities were

originally technical institutes located in capital cities, and they were formally granted university status after 1987. They specialize in technological fields of study.

The third type of universities in Australia is known as the Group of Eight (Go8), which includes the country's leading institutions with the highest research income. These universities are well known for being Australia's top research universities. The Go8 started meeting informally in 1994 and was officially incorporated in 1999 to advocate for increased resources from the Commonwealth for its member institutions. The Go8 is made up of eight of Australia's best institutions, which are globally recognised for their top-notch research facilities and education. They have high rankings, provide extensive research opportunities, and are popular among international students.

The Regional Universities Network (RUN) established in 2011, is the fourth group of universities in Australia, comprising seven universities located in regional Australia. This group aims to make sure that higher education is affordable for all people and that the skilled workers needed for regional development are produced. By doing so, they aim to make a significant contribution to the development of regional economies and communities.

The fifth group of universities in Australia is the new generation of universities. In order to implement this new kind of HEI, the Australian government established colleges of advanced education for learners who had graduated from higher secondary school. In 1988, the distinction between the university and nonuniversity sectors was dissolved. An alliance of these universities was formed as a lobby group in 2002; nevertheless, it did not last long.

The HEI countries of Latin America each have their own classification, although some similarities exist. According to Wit et al. (2005), the classification of HEIs in certain Latin American countries is as discussed below.

In Argentina, there are two distinct higher education subsystems: university institutions and nonuniversity institutions. University institutions comprise institutions that have been established or acknowledged as such, though they do not use the name 'university.' Universities serve as educational institutions as well as centres for the advancement, development, and promotion of scientific and technological research. Teacher training programmes, vocational training centres, art education programmes, and other "short courses" (courses spanning one to four years) are examples of non-university establishments. The two types of nonuniversity tertiary institutions—those under the jurisdiction of provincial educational authorities and those offering technical and professional training—are those that offer faculty training. Public or private universities and university institutes are also possible.

In Brazil, the classification of the higher education system is similar to that of Argentina. Based on research, academic organisations are defined, and as a result, higher education system in Brazil is classified into two groups: universities and nonuniversities (which include federal centres for technological education, university centres, integrated faculties, and faculties, higher institutes). Universities focus on research as their core activity, while nonuniversities are primarily focused on teaching. All other higher education institutions are perceived as nonautonomous, despite the fact that universities and university centres are recognised as autonomous. In terms of ownership, financing, and administration, HEIs in Brazil can be public (federally, state, or municipally funded) or private.

In Chile, universities are frequently categorised as traditional or nontraditional. The twenty-five councils of rectors' universities (16 public and nine private), which were in existence prior to higher education reforms in 1981, are examples of traditional universities. The legal status of the sixteen state institutions is public. They own ownership rights over their property and are autonomous. Six universities affiliated with the Catholic Church and three private institutions established in 1980 are among the universities that do not belong to the state system.

In Colombia, HEIs are divided into four categories: technological institutions (63), universities (99), and technical training institutions (51). Higher education institutions (HEIs) in Colombia can be either state-owned (32%) or private (68%).

Mexico's higher education system consists of public universities, technological universities, private institutions, teacher training institutions, and other public institutions. There are forty-five public university subsystems, the majority of which are legally independent and run their own affairs. The tasks assigned to public universities include teaching, research, and cultural promotion. In Mexico, over half of all research is conducted under this subsystem. 52% of undergraduates and 48% of graduate students are educated ate public universities.

The technological education subsystem is primarily coordinated by the federal government through the Sub-Department of Higher Education and Technological Research of the Department of Public Education, as well as decentralized institutions of state governments. Technological universities within this subsystem are decentralised public organisations that rely on state governments. The federal, state, and, in some situations, municipal—have a say in the establishment of these institutions.

Aside from teacher training schools, universities, institutes, centres, schools, and other institutions make up the subsystems of private institutions. These institutions' programmes have to be accepted into public education institutions or approved by state or federal governments' departments of public

education. 36.5% of graduate enrolment and 27.6% of undergraduate enrolment are accounted for by this subsystem. Few private institutions carry out research; the majority concentrate on the dissemination of information. Students are prepared to teach preschool, special education, and physical education in the subsystem of teacher training institutions. Eleven percent of Mexican students pursuing higher education are served by these schools.

In Ethiopia, HEIs are classified into six categories based on a differentiation study that reviewed different international experiences, namely research universities, universities of applied sciences, comprehensive universities, technical vocational education and training (TVET) colleges, liberal arts colleges, and colleges of fine arts. According to the MoSHE (2020), research universities focus on a higher level of teaching and research, with core values including 'meritocracy; academic freedom and free inquiry; discovery of new knowledge; peer-review system; and the pursuit of truth' (pp. 71–72).

Universities of applied sciences focus on professional programmes and applied research. Comprehensive universities are higher learning institutions with dual missions of teaching and research. They typically have strong undergraduate divisions that award bachelor's degrees, as well as graduate and professional schools which grant master's and doctorate degrees (MoSHE, 2020).

2.3. Research Universities

2.3.1. The nature and features of research universities in western countries

Research universities are recognised as establishments devoted to knowledge generation and transfer. They offer various disciplines and are equipped with appropriate infrastructures for higher-level teaching and research activities (Altbach, 2013; Mohrman et al.,2008). Likewise, Taylor (2006) and Steven (2002) defined research universities as universities whose primary aim is to conduct research.

Research universities are characterized differently in the works of various scholars. Altbach (2011) explained that research universities have unique missions and are defined by their need for sustained support, favourable working conditions, larger budget requirements than other universities, and higher costs per student. In most cases, scholars associate research universities with world-class institutions. For instance, Douglass (2016) states that a world-class university possesses outstanding research, excellent facilities, a culture that prioritises excellence, an international reputation, and high rankings. Moreover, Douglas clarified that flagship universities are either research-intensive institutions or are transitioning to become that, with wider recognised goals, though they are distinct from world-class universities.

Similarly, Salmi (2009, p. 7) summarized the features of a world-class university (WCU) as a combination of three primary variables: (a) 'a high concentration of talent among faculty and

students'. World-class universities draw talented students, particularly postgraduates, and competent faculty members who conduct national and worldwide research, (b) 'abundant resources to offer a rich learning environment and conduct advanced research, and (c) favourable governance features that encourage strategic vision, innovation, and flexibility' as evidenced by the high level of intellectual and administrative authority at research universities. This kind of governance encourages strategic vision, innovation, academic freedom, flexibility, organisational learning, and a culture of excellence. Moreover, this feature frees organisations from the burden of bureaucracy to manage resources and make choices. A longer list of important characteristics, which includes more abstract ideas like the university's contribution to society and its worldwide reputation—both of which are exceedingly challenging to quantify objectively—has also been revealed by Alden and Lin (2004),cited in Salmi (2009) (see Appendix 1).

Research universities are known for their high-quality students and staff, as well as their focus on postgraduate programmes. In line with this, Mukherjee and Wong (2011, p. 144) stated that 'research universities are known to be highly selective, admitting the best and brightest students nationally and internationally, growing their graduate numbers compared with the undergraduate enrolment, and hiring high-performing faculty members from a worldwide talent pool.' Moreover, research universities exhibit characteristics such as intensive budgeting, lack of corruption, competent and committed research staff, performance-based promotion, competent students, a research culture, and effective leadership (Altbach, 2009).

2.3.2. Research universities in Africa

Though research universities are a common feature of Western countries, they are highly demanded by developing nations such as countries in Africa. Bunting, et al, (2017) asserted that while research institutions are essential for developing countries, they are still not among the best in the world. Furthermore, Brodhag (2013) stressed that rather than merely copying a northern model, the demand for universities in developing nations should be based on their unique knowledge and development challenges. According to Brodhag, research universities will serve two important interconnected functions: producing and disseminating knowledge and regulations, and preparing students to be leaders and major participants in innovative environments.

Research universities are primarily concentrated in developed countries. They are considered crucial in establishing distinct and efficient academic systems, enabling their nations to become part of the worldwide culture of knowledge and engage competitively in the complex information economy of the modern world (Altbach, 2013). Emphasising the significance of world-class universities for developing nations, Salmi (2009, pp. 3–4) has stated:

> In the past decade, the term 'world-class university' has become a catchphrase, not simply for improving the quality of learning and research in higher education but also, more importantly, for developing the capacity to compete in the global higher education marketplace through the acquisition, adaptation, and creation of advanced knowledge.

The characteristics of research-oriented universities are defined by the HERANA, a project launched to discover the connection between universities and development in Africa. The project originated with discussions among various sponsors organised by the United States-based Partnership for Higher Education in Africa (PHEA) during a meeting in Dar es Salaam, Tanzania, in January 2007. Recognising the importance of harmonising resources and understanding the need for a project that focuses on a group of leading national HEIs in Africa, PHEA, primary assisted by the Ford Foundation and the Carnegie Corporation of New York, the Norwegian Agency for Development Cooperation (NORAD), and the Centre for Higher Education Transformation (CHET) in South Africa formed the HERANA in collaboration 'with eight flagship African universities: the University of Botswana, the University of Cape Town, the University of Dar es Salaam, Eduardo Mondlane University, the University of Ghana, Makerere University, the University of Mauritius, and the University of Nairobi'(Madhani, 2021, p.35). The project was led by the CHET, and the eight institutions were chosen since each has been the most renowned national university in the nation it represents after independence, and each has wide flagship objectives defined in its statements of mission and vision. The project focuses on the intricate associations between higher education and economic development, and the explicit goals of providing information and establishing networks for researchers and policymakers in Africa(Bunting, et. al., 2014).

The characteristics of the HERANA universities as a group, which aspires to be research oriented, include the following:

> To have a high academic rating, which would make it a world-class university, or at least a leading university in Africa; to be a centre for academic excellence; to engage in high-quality research and scholarship; and to enhance, through its knowledge outputs, national and regional development. (Bunting et al., 2017, p. 3)

The broad characteristics of a research university accepted by the HERANA project can be summarized based on input frameworks and output frameworks (indicators). In line with input frameworks, the three dimensions are student enrolments, fields of study, and the availability of well-qualified faculty.

The first input indicator used for assessing universities is based on student enrolment, which can range in size from a small institution with 10,000 student heads to one with over 40,000. Enrolment could be primarily in undergraduate programmes, but the overall percentage of undergraduate enrolments cannot exceed 75%. Postgraduate programs ought to account for no less than 25% of

student enrolment, with master's and doctorate programs accounting for at least 15% and 5% of the total, respectively.

The second input indicator is the field of study. In this regard, the university is expected to have a balanced shape in fields of study, with a major emphasis on programmes and student enrolments in science, engineering, and technology, including the health and clinical sciences. In order to attain the necessary balance, a university's undergraduate and graduate enrolment should be a minimum of 40% in science, engineering, and technology; its total enrolment should not exceed 30% in business, economics, and management; the remaining 30% should be in the social sciences, humanities, and education.

The third input indication is the number and percentage of highly qualified permanent staff in advanced categories, which allows the university to carry out research activities, such as advising PhD candidates. In this case, no less than 60% of the university's permanent staff need to be PhD holders and a minimum of 60% of them need to hold higher-level positions like senior lecturer, associate professor, and full professor. Nevertheless, the academic staff available as a teaching resource should be distributed in a balanced way across all fields of study. The need for lower ratios in science, engineering, and technology should be recognised, but this should not be at the cost of unfavourable ratios in other fields. An acceptable average ratio across science, engineering, and technology fields would be 15:1. Acceptable ratios across other fields would be 25:1.

With regard to the output framework, three performance measures are considered vital. The first output performance measure to be considered is the ratio of the university's total graduates to total enrolments for a university that has a large proportion of undergraduate enrolments and a lower percentage of master's and doctoral enrolments. At a well-functioning university, at least 25% of all undergraduate and graduate students should, at times of significant expansion, finish their degrees and qualify every schooling year.

The second measure of output performance is the proportion of the university's total master's students to total enrolments. A university should expect at least 25% of its master's enrolments in a given year to graduate at the end of that year.

The third measure of output performance is the percentage of the university's total doctoral students to total enrolments. In this case, a university should expect at least 15% of its PhD students to graduate at the end of the year. This output performance measure specifically relates doctoral graduates to doctoral enrolments. A new measure is needed to relate doctoral graduates to the number of academics qualified to act as supervisors of doctoral students. Because of variations in

supervisory techniques, larger proportions are feasible to be assigned for science, engineering, and technology than for social sciences, humanities, and education. These ratios could be (a) in science, engineering, and technology, approximately 0.4 doctoral graduates per academic with a doctorate per academic year, and (b) in social sciences, humanities, and education, approximately 0.25 doctoral graduates per academic with a doctorate per academic year.

The fourth output performance measure relates research publications to the quantity of academics holding doctorates. Given that the HERANA count of research publications allows joint authors to each be awarded a unit for a publication, and given that joint authorships are predominant in the science, engineering, and technology fields than in the social sciences, humanities, and education fields, different ratios can once again be set for these broad fields. A university should expect (a) each science, engineering, and technology academic with a doctorate to produce (whether as a joint author or not) 2.0 research publications annualy, and (b) every social sciences, humanities, and education academic with a doctorate to produce (whether as a joint author or not) 1.0 research publication per year (Bunting et al., 2017, pp. 66–68; Cloete et al., 2018).

2.3.3. Research universities in Ethiopia

Choosing a research university as a strategic theme is a recent development in Ethiopia. The issue of research universities has received attention in various national development documents. For instance, the Fifth Education Sector Development Program (ESDP V 2015/16-2019/20) outlined plans to develop criteria and a road map for establishing research universities during its implementation period. The goal was to have three research universities with 20% postgraduate students and 50% doctorate holder teachers by 2020 (MoE, 2015). Similarly, the Growth and Transformation Plan two (GTP II 2015/16-2019/20) emphasises that the establishment of research universities will adhere to international standards and criteria (FDRE, 2016). The education development roadmap has also proposed differentiation as an avenue of reforming higher education (MoE, 2018).

In accordance with the aforementioned national development programmes, the MoSHE conducted a study on higher education differentiation and identified three categories of HEIs, of which the research university is one. According to the MoSHE (2020), research universities in Ethiopia are expected to possess certain characteristics and features associated with the quality of academics, the proportion of postgraduate students, partnerships, research budget allocation, educational facilities, and availability of research projects. In terms of teaching staff, research universities should aspire to have at least 50% of faculty members holding Ph.D. degrees and publishing annually in reputable journals. Similarly, with regard to the proportion of postgraduate students, universities should strive

to enrol significant numbers of doctorate and master's students (Ethiopian and international), with a target of 30% or more enroled in graduate programmes.

Regarding partnerships, research universities should strive to establish joint master's and doctoral programmes with overseas institutions, as well as foster scholarly and research partnerships with local, regional, and global collaborators. When it comes to budget allocation, at least 5% of the university's total annual budget should be dedicated to research. This funding should be sourced from local/public and external research funding sources, as well as resources obtained through local, regional, and international competition. With regards to educational facilities, a research university should aim to provide facilities that align with its teaching and research goals, including laboratories, workshops, computer centres and ICT infrastructures, classrooms, digital libraries, reference books and scientific journals (hard copy and e-books/journals), and research centres and field research facilities. Finally, a research university should focus on developing projects in collaboration with local communities, national and regional government agencies, and industry and business partners (MoSHE, 2020, p. 72).

Following the MoSHE (2020) differentiation study, BDU has developed its ten-year strategic plan 2020/21-2029/30) and revised its vision as follows: 'BDU aspires to be one of the leading research-intensive universities in Africa and the first choice in Ethiopia by 2030' (BDU, 2020, p. 42). Hence, the major goal of this study is to explore the perspectives of university leaders on what constitutes a research university, as well as the key initiatives they have undertaken in their efforts of realizing the research university vision.

2.3.4. The challenges facing research Universities

Though research universities are believed to be centres of knowledge generation and prestigious international brands, they are also faced with various challenges. These challenges can vary depending on the approach taken to establish them: "upgrading existing institutions", "merging existing institutions", or "creating new institutions" (Salmi, 2009). According to Salmi, the difficulties of founding research universities are evident in their capacity to draw in talent, control expenses, set up governance, shape organisational culture, and implement change management strategies.

Acknowledging the variations in the breadth and depth of issues among research universities worldwide, some of the challenges identified by Altbach (2009:2011) include funding, research, commercialism, the market, and autonomy and accountability. According to Altbach, research universities require more funding than teaching universities to be established and function effectively. Therefore, they are expected to establish diverse sources of funds, which can only be achieved with support from the government.

The second challenge lies in cultivating a research culture, inquiry, and quality, all of which are a research university's essential components. Financial constraints have led to a shift in research towards applied, frequently profit-oriented studies, which are easier to fund than basic studies and could bring in money for the university. The emphasis on commercial values above fundamental research is one way that the commercialization of research shifts the focus of the research community.

The third challenge facing universities worldwide is the encroachment business interests and market dynamics on higher educational institutions. This threat is particularly significant for research universities, as they are fundamentally institutions that serve the public good. The fourth challenge involves balancing autonomy and accountability, a long-standing issue for educational organisations. Universities traditionally have had the autonomy to make decisions regarding academic issues and to determine their own course. However, external organisations such as donors, government funders, and religious institutions, also have some influence on higher education. Without accountability, research universities will struggle to secure the sustainable funding necessary for their operations.

A study report by the Research Universities Futures Consortium (2012) in the US on the nation's research universities indicated six key findings as challenges. The first challenge is the extreme intricacy and competition. A highly competitive "winner take all" atmosphere has been brought about by a lack of resources (compared to the demand for them), making it more challenging to oversee academic research operations. Increasing regulatory demands have made things more difficult.

The collection of indirect costs and compliance is the second challenge. Government reporting requirements and regulations have grown gradually but steadily, which has put institutional financial strain on the rise and diverted faculty time from research. However, sponsors are only able to reimburse a portion of the study expenses.

The third challenge relates to the effect and quality of research: innovation necessitates a variety of high-caliber studies as well as the creation of performance indicators that are standardised and consistently represent the intricacy and societal expectations of current research. The academic research community should take the lead on this in collaboration with important stakeholders.

The fourth challenge goes to panning and decision support present: in an environment with limited resources, assessing programmes and significant possibilities demands the use of predicted and current data in order to enable research with the greatest possible impact. Data reflecting a local,

national, and international viewpoint is necessary for strategic decision-making at the municipal, state, and federal levels.

The fifth challenge concerns the value of the research university: the significance of research universities in supporting local and regional economies, advancing national innovation, and enhancing security. This is a story that needs to be effectively articulated. Local and national opinion leaders and decision-makers must receive communications from university teachers, students, staff, administrators, and outside supporters that are focused, clear, and consistent. It's critical to steer these discussions using extremely reliable accountability and performance-based statistics from unbiased sources.

The sixth challenge highlighted in the report is the vulnerability of the academic research enterprise. It is important for the university community, as well as sponsors and stakeholders, to fully grasp and appreciate the fragility of research administration and leadership. Understanding the staffing needs, required competencies, and professional development of research administrative and programme support staff is vital for ensuring the efficient and effective execution of research. These challenges are common among higher education institutions in Africa and Ethiopia, where the research culture is not well-established and staff are often more motivated by incentives than by a genuine commitment to advancing science.

2.4. Leadership in Research Universities

2.4.1. The role of leadership in establishing a research university

Engagement of leaders in the change process is inevitable regardless of their capacity and intention to control internal or external forces. Leaders may participate by either promoting or resisting the process. In this regard, Kezar (2014) stated that academic leaders can shape outcomes differently through their responses'. According to Kezar, leaders can serve as vehicles for change by enhancing human interaction, facilitating communication, discussions, and collaboration, and helping to encourage individuals and groups to express their ideas and increase their experience with new ideas or values.

Leadership has a crucial role in implementing organisational change. Yukl (2013) asserts that leadership is essential to the implementation of major organisational changes, especially in influencing others whose collaboration is essential, such as followers, peers, and outsiders. Moreover, research on leadership among academic staff and departmental leaders of research-intensive environments has revealed that leading change is considered a key attribute of successful leaders in higher education (Bryman, 2007; Ngui et al., 2010; Gibbs et al., 2008).

Leaders are believed to play key roles in driving higher education change to enhance the quality of research and teaching. Scott et al. (2008) in a study revealed how effectively change management is crucial for academic leaders. Scott et al. (2008, p.27) explicitly stated 'It is to making sense of the continuously and rapidly changing context in which they must undertake this work that we now turn'. In addition, Drew (2010, p.57), in her pilot study on senior leaders at an Australian university, revealed 'the need for strategic leadership, flexibility, creativity and change-capability; responding to competing tensions and remaining relevant; maintaining academic quality; and managing fiscal and people resources' were the primary challenges in higher education. She demonstrated that the 'change-readiness' of leaders is crucial in effectively navigating various types of change.

Strong leadership with strategic vision plays a vital role in the establishment of a research-intensive university. Competent leaders who can craft an ambitious vision for the organisation's mission and objectives, along with an explicit strategy to transform that vision into tangible goals and initiatives, are essential inputs for re-establishing research universities (Salmi, 2009).

Effective leadership is key to establishing an HEI that strives for an innovative and dynamic system. Strong leaders are crucial in building strong structures and teams and working towards institutional success (Shattock, 2010). Equally, Yukl (2013) indicated that one of the qualities of effective leaders is change-oriented leadership behaviour. According to Yukl, this leadership behaviour impacts the 'innovation, collective learning, and the successful implementation of major changes in an organisation' (p. 72). Furthermore, 'persistence from visionary leadership' is among the requirements for enhancing the development of research universities (Lacroix & Maheu, 2015).

Research universities need leaders who excel in both management competence and research practices. According to Goodall (2015), when it comes to top research universities, the high-performing ones have leaders with an excellent record of achievement in research paired with competent managerial practices. Goodall (2015,p.4), explicitly stated that 'the core work of a university is research and research-led teaching. It may be that a leader who has inherent knowledge of the core business can make all the difference to a university's performance.'

Moreover, Goodall argued that, while there is no direct link between research output and university leadership, there exists a correlation between a leader's research background and the university's ranking on a global scale. This witnesses the importance of university leaders, including the president, vice president, directors, and deans, fully comprehending the institution's central agenda, crafting a strategic vision for the future, and effectively implementing this vision with the necessary operational skills.

The government of Ethiopia places a top priority on the role of leadership in HEIs. The development of higher education leadership has received significant emphasis through education sector development programmes (ESDP II, III, IV, and V), and the MoE's education strategic centre has consistently provided on-the-job leadership capacity-building training (MoE, 2015, 2010, 2005, 2002). Moreover, Ayele (2020) highlighted that effective leadership from top management is crucial in driving change in higher education in Ethiopia. Therefore therefore, achieving the university's vision requires effective leaders, among other factors.

2.4.2. Qualities expected of research university leaders

Different scholars such as Siswanto et al. (2023), Black (2015), Schofer and Meyer (2005), Davies et al. (2001), Middlehurst (1999) and Gibbons (1998) have identified what qualities effective leadership in higher education consists of. Knowledge and understanding of leadership effectiveness are consistent across literature and researchers, despite the inconsistent use of key terms and different approaches to investigation (Bryman, 2007a). Based on Bryman's study, good leadership is associated with six primary traits of leader behaviour. According to Bryman, an effective leader is someone who upholds personal integrity, is trustworthy, encourages team members, includes the team members in decision-making, gives direction, instils principles that enable others to comprehend and value the leader's guidance, and looks out for their staff.

The features of effective leadership have been explored by numerous scholars. According to Scott, Coates, and Anderson (2008), who surveyed over 500 academic leaders in Australia, effective leadership requires a blend of contemporary professional knowledge (such as understanding effective teaching and learning practices) and interpersonal and personal skills (including self-awareness, decisiveness, cognitive flexibility, and adeptness in diagnosis and strategy formation). Based on literature review, Bryman (2007a, p.697) also identified about 13 effective behaviors for departmental-level leadership including 'a clear sense of direction/strategic vision;' 'preparing department arrangements to facilitate the direction set;' 'being considerate;' 'allowing the opportunity to participate in key decisions/ encouraging open communication;' 'communicating well about the direction the department is going and acting as a role model/having credibility;' 'creating a positive/collegial work atmosphere in the department, 'being proactive in doing so providing feedback on performance;' and 'providing resources for and adjusting workloads to stimulate scholarship and research.'

Similarly, Bland et al.(2005) and Ambrose et al.(2005) provided examples of effective leadership behaviours, such as promoting an enabling atmosphere for staff members to participate in their research and teaching, communicating clearly about the department's direction, giving performance

feedback, and allocating resources for and modifying workloads to encourage scholarship and research. Furthermore, Bland et al.(2005) and Benoit (2005) identified three traits of good leaders: acting as a role model and projecting credibility; providing a supportive atmosphere for staff members to engage in their research and teaching; and having a clear sense of direction or strategic vision.

According to Douglass (2016,p.81), 'Flagship universities need a strong conceptual model of governance to assert their leadership role and shift their focus away from a dependence on ministerial demands.' Douglass stated that three operating principles, namely 'academic autonomy,' 'fiduciary autonomy,' and 'public accountability,' should be included in the leadership roles of flagship universities. In addition, flagships ought to possess "four essential freedoms" pertaining to the academic operation of an institution in terms of academic autonomy: the right to choose students—within a broad framework of national and regional policy—the right to choose what to teach, how to teach it, and who will teach it.

The term "fiduciary autonomy" describes the need for flagship institutions to maintain a level of independence necessary for the economical and efficient management of their resources. Significant budgetary authority should be part of this, as should the university's ability to reallocate academic positions and any or all of the funds and resources that have been allotted, including land and buildings, in order to determine requirements and make necessary personnel changes.

Public accountability is the degree to which universities are responsible to the governments that fund and charter the universities. Therefore, whether they are private or public, institutions need to keep an eye on and evaluate their performance, ideally with the assistance of a university leadership team that includes members from civil society and government. This body has the authority to make academic leaders responsible for attaining institutional objectives.

Douglas further explained that more than just the provision of granting a significant amount of institutional autonomy by the government is required to promote the objectives of a flagship. Consequently, to facilitate decision-making with distinct lines of power and guidelines for shared governance with faculty, the autonomy provision needs to be supplemented with a regulatory and leadership system. This highlights the need to balance the level of autonomy with accountability. On the one hand, growing executive authority creates an immense amount of conflict and uncertainty amongst academics (Douglass, 2016). On the other hand, excessive power can result in a management style that 'pushes academic participation to the periphery' and cause 'a loss of academic vitality and distinctiveness' (Shattock, 2013).

Though not directly mentioning research universities, Bland et al.(2005) et al. (2005) described four broad attributes that are essential for the leadership of institutions that support research. These

characteristics suggest that the leader of a research-friendly institution must possess both research and leadership skills. However, according to Bland et al. (2005), being a 'participative leader' is particularly significant. The table below provides a summary of the four characteristics of effective leadership in research-friendly institutions are summarized in the table below.

Table 1. Leadership characteristics that facilitate research productivity

Characteristic	Description
Scholar	Highly regarded as a scholar; serves as a sponsor, mentor, and peer model for other group members
Research oriented	Possesses a 'research orientation'; has internalized the group's research-centred mission
Capably fulfils all critical leadership roles	Manager of people and resources Fund-raiser Group advocate Keeps the group's mission and shared goals visible to all members Attends to the many individual and institutional features that facilitate research productivity
Participative leader	Uses an assertive, participative style of leadership Holds frequent meetings with clear objectives Creates formal mechanisms and sets expectations for all members to contribute to decision-making Makes high-quality information readily available to the group Vests ownership of projects with members and values their ideas

Source: Bland et al. (2005, p.228)

For research universities to flourish, they need to have leadership that ensures good governance. Among the three key factors of a World-Class University, as stated by Salmi (2009), good governance is expected to ensure excellence in leadership and management, in addition to having gifted faculty, and students and solid resources.

2.5. Higher Education Change-Related Research in Ethiopia

In Ethiopia, various studies have been conducted on change in higher education. For instance, Mehari (2010) completed a dissertation on 'Governance in the Ethiopian Higher Education System,' focusing on the relationship between the state and HEIs, specifically the case of Mekelle University. Mehari employed a conceptual framework based on a combination of Eastermann and Nokkala's (2009) 'dimensions of institutional autonomy, resource dependency theory, and institutional theory.' Mehari demonstrated that changes and reforms in Ethiopian HEIs typically follow a top-down approach, with the state being the main actor driving reform. The state significantly impairs universities' institutional autonomy, and they often implement what the government dictates.

Moreover, Melu (2016) explored the overall patterns of governance in HEIs in Ethiopia, specifically observing changes and continuity in governance. Melu indicated the need for a governance model that fits the Ethiopian context to facilitate massification and achieve quality education, research, and community services.

Aschalew (2011) employed resource dependency and neo-institutional theories to reveal the path of transformation at three universities as part of his master's thesis investigation into how Ethiopian universities are restructuring in light of BPR reform. Aschalew (2011, p. iv) revealed a shared shift 'from collective to strong executive leadership ideal' in the sample universities. The government was shown to have had a major influence on how the universities responded, despite the fact that there were only minor institutional variations. The study discovered, however, that government interventions have not yet shown themselves to be able to produce the intended real change.

Ayele (2020) found that change is often initiated by the management of institutions or the government without involving other key implementers in the Ethiopian context. In addition, the results of his study showed that in order for institutions to effectively manage change, it is advised that they become learning organisations, embrace a transformational leadership style, provide senior management with effective leadership, and develop new knowledge and insights that impact behaviour, particularly for employees and students.

Studies related to change in Ethiopian higher education have emphasised BPR. For instance, Lerra (2015) examined the perceptions of the university community regarding challenges to transformative change for enhancing the quality of education at Wolaita Sodo University. Lerra found that the practice of transformational behaviours among academic leaders is rare, as they rarely assess the institutional context, make a concerted effort to bring about change within the university community, or try to inspire and prepare it for change.

Similarly, Gebremeskel (2018) investigated the leaders' perceptions on how organisational culture affects the implementation of management innovation (BPR) at BDU using organisational culture as a framework. Gebremeskel (2018) noted that while organisational culture was recognised as a crucial factor for organisational success, it was also viewed as a hindrance to the adoption of management innovation (BPR). Gebremeskel (2018, p.48) identified 'poor understanding of the innovation, low commitment and sense of ownership, disconnection between middle and top level leaders, and reporting for conformity' as key barriers.

Gebretsadik (2022) examined how middle and lower-level academic leaders contribute to fostering change readiness at Dire Dawa University. He found that there were poor institutional context

analysis, little endeavour to bring about change within the university community, weak effort to inspire and prepare the community for the change, and most crucially, transformational behaviours are rare among academic leaders. Surprisingly, none of the studies conducted in Ethiopia addressed issues concerning research universities. Moreover, many of the studies did not explicitly employ a specific theoretical framework.

As mentioned above, in Ethiopia, various studies on higher education have been conducted, though not directly related to the research university context. These studies have revealed that, despite efforts to enhance the leadership effectiveness of higher education leaders to foster innovation and manage introduced changes, higher education leaders are not meeting expectations. For instance, with regard to ESDP IV, it was noted that the 'higher education management and leadership system is not at the required level' (MoE, 2010, p. 61). Research on higher education reform in Ethiopia has also been conducted by scholars such as Yizengaw (2003), who indicated that poor commitment and quality of leadership at all levels in the sector were significant challenges. Yizengaw (2004) found that despite substantial public funding granted to the higher education sector, and there has been an improvement in access, research engagement in HEIs remains low and does not contribute to the nation's socio-economic development to the expected leve. In addition, Woldegiyorgis (2013) identified critical issues facing HEIs in Ethiopia, including staff qualifications, satisfaction, motivation, quality management, and autonomy. Therefore, this study focuses on examining the change process of BDU towards becoming a research university using Bolman and Deal's model.

2.6. Summary

Higher education institutions have unique features that set them apart from other organisations. Some of these include autonomy and academic freedom, a loosely coupled structure, complex or vague goals, and collegial leadership. Different countries have various approaches to categorizing universities. Research universities are a common category found in almost all countries reviewed in this paper.

Research universities are establishments with skilled faculty members chosen for their accomplishments and output. In addition in order to draw in professors and students, research universities need to have welcoming organisational cultures with features like academic freedom, performance-based promotions, competitive pay, and long-term employment more so than other types of universities. Furthermore, research universities need state-of-the-art physical spaces and laboratories inside a differentiated academic structure (Altbach, 2013). The aforementioned attributes indicate the complexity of research universities, so they need to emphasise the development of staff capacity and commitment, securing resources, and fostering a strong research culture.

More importantly, the university needs to create a system that cultivates talented staff and students and encourages a research culture. On the other hand, the university operates in a dynamic environment and faces various challenges. To address these challenges, research universities should be strategy focused. Therefore, research universities need to actively engage with their environments (government, research institutes, industries, etc.) to secure financial, human, material, and other resources. This requires effective leadership that is visionary, strategic, and change oriented.

Leadership is one of the most crucial resources required to establish a research university. Leaders play a significant role in creating a vision, devising strategies to achieve that vision, and monitoring and evaluating the implementation and effectiveness of those strategies. Effective leadership, especially during periods of change, is critical and demands excellence from the leader. While the quality aspects of leaders are diverse, being change oriented, inclusive, and innovative are certain key dimensions.

Scholars have also noted that leaders are expected to be competent not only in their management skills but also in their academic and research skills. Moreover, effective leadership requires leaders to balance autonomy and accountability. Therefore, leaders who aim to achieve the research university vision in general, and specifically at BDU, are expected to play vital roles and possess relevant leadership qualities.

The capacity for change leadership is a key role needed by Ethiopian higher education leaders. However, studies focused on change in higher education in Ethiopia are not only limited but also tend to emphasise BPR rather than addressing research university issues. Previous research studies on higher education in Ethiopia have. Therefore, the purpose of this study is to explore leadership orientations in the journey toward becoming a research university using Bolman and Deal's (2021) four-frame model.

3. THEORETICAL FRAMEWORK

This study delves into the aspiration of transforming into a research university and the necessary steps to reach this vision. It primarily investigates the perceived activities and challenges in this journey. To provide a framework for the study, it is pertinent to review change management theories, as the path to achieving this vision involves navigating through various changes. Hence, organisational change theories and models are presented in this chapter.

While many theories have been put out as frameworks to guide educational changes, it can be difficult to distinguish between them since they frequently overlap, share viewpoints, or use different names for the same concepts (Bush, 2010). Among the models that are frequently cited in the literature on educational change are Lewin's change model, Burns' transformational leadership theory, Kotter's eight-stage change model, and Bolman and Deal's four-frame model. After discussing these various theories in more detail, a summary is provided of the study's theoretical framework—Bolman and Deal's four-frame model as well as its application in higher education and, more particularly, within the context of this investigation.

3.1. Lewin's Model of Change

Kurt Lewin's change model was among the first theories to significantly impact an organisational change. The three-step change framework developed by Lewin in 1946 provides a foundational understanding of planned change and highlights the effective use of information systems (Benjamin & Levinson, 1993, in Kavanagh & Johnson, 2018). Lewin's change model defines change as altering the factors that sustain a system's behaviour constant, and specifically portrays the dynamic between two sets of competing forces, one tasked with maintaining stability and the status quo and the other with promoting change. Lewin defined the result of these two opposing sets of forces as a 'quasistationary equilibrium'. We need to strengthen the forces in favour of change while simultaneously weakening those against it to control the situation and increase the possibility of change (Kavanagh & Johnson, 2018).

By setting out the two sets of forces in two columns, we can apply a process known as force-field analysis to better understand them. In the first column, write the forces that facilitate a change and, in the second, those that may resist it. Assigning a relative strength to each stated force is also beneficial. By manipulating the forces, we can determine which forces require strengthening or

weakening to effect change. Lewin suggested that changing the factors that maintain the current state of the organisation or the path of least resistance would result in less stress and opposition than strengthening the factors for change. For this reason, the first is a more effective change management strategy than the second.

Perceiving change as a profound and dynamic psychological process is vital to comprehending this concept on an individual basis (Schein, 1996, in Kavanagh & Johnson, 2018). This psychological process entails both difficult unlearning and challenging relearning as one endeavours to cognitively reconstruct one's beliefs, perceptions, feelings, and attitudes. Any change process, according to Lewin (1952), as cited in Rothmann and Cooper (2008), consists of three stages: 'ending the status quo,' moving toward 'a new state (change),' and then 'refreezing the new change' to guarantee its durability, as illustrated in Figure 2.

Figure 2. Lewin's three-step change model (Rothmann & Cooper, 2008,p.262)

1. Unfreezing

Before implementing any change, it is necessary to convince people to accept the new circumstances and not revert to the old ways of thinking and acting. According to Kavanagh and Johnson (2018, p. 168), 'At the outset, every change project requires getting people to change their minds and behaviour regarding the old way of doing things and to embrace the new state.' Similarly, individuals within an organisation should 'see the purpose of the change, agree with it, be supported by rewards and recognition, have the skills to perform the new activities, and see key people modelling the new behaviour,' (Warhaftig, 2005 in Kavanagh and Johnson (2018). An unfreezing technique called 'psychological disconfirmation' is occasionally employed. Managers can encourage their staff to participate in change initiatives by providing data highlighting the differences between the behaviours members of the organisation want to see and the behaviours being displayed.

However, unfreezing is a challenging process. According to Schein (1996, p. 28), 'unfreezing is basically three processes, each of which has to be present to some degree for readiness and motivation to change to be generated'. These processes are 'disconfirmation, induction of guilt or survival, and anxiety creation of psychological safety or overcoming of learning anxiety.' Moreover, Schein argues that, for change to occur, someone has to voice their dissatisfaction or protest about the status quo. People must understand what motivates change, why it is needed, and where it is

going. They need to understand what can and cannot be changed as well. They have to be aware of the business case for change, and supervisors need to assist the staff in comprehending the advantages of making adjustments. Lastly, managers should discuss the benefits or drawbacks of making changes or maintaining the status quo.

In the same vein, Rothmann and Cooper (2008, p. 263) listed the following five strategies to bring about dissatisfaction with the current situation:

> Make employees aware of the need for change by presenting the reality of the situation to them, disclosing the differences between the present and the desired situation, describe a more desirable future situation, i.e., develop a vision of a future state that could energize people, $Communicate positive expectations regarding the change, and inform employees about the expected advantages of changes for them.

Sometimes, explaining a change is not enough. It is imperative to persuade individuals that unless they change, achieving personal as well as organisational objectives will be difficult. Kotter (1996, p. 5) refers to this as 'instilling a sense of urgency'. When there is no sense of urgency, employees 'will not give that extra effort […] they will not make necessary sacrifices'. Rather, they will defy orders from above and obey the status quo. Psychological safety aims to lessen people's concerns when they are asked to execute novel or uncommon tasks.

2. Changing

While unfreezing piques interest in change, altering, or what Bridges (2003) refers to as 'a transition', concentrates on bringing about a change in employees' behaviour. Bridges states transition as a 'psychological process that involves three phases as individuals internalize and reconcile the specifics of the altered situation brought about by the change' (p. 3). The outcome of the change project is jeopardized if all parties are not attended to during the transition period. Bridges further states that 'managing transition involves not just whopping financial deals but the simple process of helping people through three phases, namely, ending ➔ neutral zone ➔ new beginnings' (2003, pp. 4–5).

i) Ending: prior to starting new things, we must put a stop to what was. We must determine who is losing what, anticipate an answer, and voluntarily accept the losses. Since it takes time to fully understand a change, it is essential to have recurring information about the changes (Bridges, 2003; Cameron & Green, 2015).
ii) Neutral zone: There exists a 'neutral zone' where individuals must go through the necessary psychological shifts to start embracing the new and say goodbye to the old ways of thinking. People need clarification but lose motivation and become more anxious in the neutral zone. As opinions become more divisive, consensus may disintegrate (Bridges, 2003; Cameron & Green, 2015).

iii) New beginnings: The purpose of this phase is to leave the change behind and start over. When people believe they can emotionally commit to trying something new, that is when the beginning occurs (Cameron & Green, 2015). At this point, people start to have a renewed feeling of purpose, vitality, and identity, which aids in change beginning to occur (Bridges, 2003).

Bridges (2003) commented that –

> ... if they [change leaders] do not help people through these three phases, even the most wonderful training programmes often fall flat. The leaders forget endings and neutral zones; they try to start with the final stage of transition. And they cannot see what went wrong!! (p. 6)

3. Refreezing

The refreezing phase comprises stabilizing changes by helping people adapt to new activities in their daily activities. According to Burnes (2004, p. 986), this final stage must 'stabilize the group at a new quasi-stationary equilibrium to ensure that the new behaviours are relatively safe from regression.' Typically, this happens when the organisation's rules, practices, and culture are modified.

Burke (1994) states that a variety of techniques are used to stabilize changes, including: a) giving a person the opportunity to assess whether the new behaviours and/or attitudes truly match their sense of self, are consistent with other aspects of their character, and could be easily incorporated; and b) allowing them to see whether others will accept and validate the new behaviours and attitudes. Informing people about things that will remain unchanged is crucial and acts as a stabilizing anchor to help control changes. The use of the reward system can reinforce behaviour. Clearly defining appropriate behaviour may be aided by the formal and public recognition of staff members who contribute to steering the business on the right track. Guardians may be hired as change agents and role models for the new culture.

Although Lewin's change model lays the foundation for comprehending the processes of organisational change, it has some limitations. These include a lack of emphasis on the importance of a leadership vision and strategic planning for change, failure to consider dynamic and complex organisational contexts (Bartunek & Woodman, 2015), limited capacity to change in large organisational settings (Mellita & Elpanso, 2020), and lack of consideration for the change-driving potential of organisational power and politics (Burnes, 2004).

3.2. Transformational Leadership Theory

Burns' (1978) theory of transformative leadership established the theoretical basis for the contemporary notion of transformational leadership (Mittal, 2015; Goodwin, et al., 2011). The leadership theory of Burns (1978), states that followers and leaders motivate one another to complete tasks to the desired standard. Burns highlights that, for an organisation to succeed, transformational leaders must establish a vision that directs the organisation's future course and inspires their followers to pursue it. He emphasises the significance of establishing and utilising well-defined work methodologies to accelerate the realization of the intended vision.

However, Burns' (1978) theory faced scrutiny in subsequent research. In one of these investigations, Malakyan (2015) explained that House (1977) substituted organisational charisma for the charismatic component of Burns' (1978) transformational leadership theory. The power and encouragement that charismatic leaders impart to their followers are sparked by organisational charisma, which creates a strong bond based on deeply held philosophical beliefs between the leader and followers (House, 1977; Malakyan, 2015).

While additional research is necessary to understand why transformational leaders attract a great deal of support to achieve unexpected outcomes in challenging situations, the neo-charismatic leadership perspective of House (1977,p.28) suggested that charismatic leaders are characterized by five behaviours 'goal articulation, role modelling, personal image building, demonstration of confidence and high expectations for followers, and motive arousal behaviors'. House (1977) developed the foundation of modern transformational leadership but his neo-charismatic leadership perspective was criticized as it emphasises leader–follower relationships and disregards the organisational climate's encouraging power (Malakyan, 2015).

A fundamental rationale for effective transformational leadership was forwarded by Bass (1985), who cited five criteria: attributed behaviours, behavioural charisma, inspiring motivation, intellectual stimulation, and individualized consideration. Attributed behaviours force employees to prioritize the company's transformative aim over their own interests. Behavioural charisma is the sense of purpose a leader exhibits that inspires their team members to act morally and ethically. While inspirational motivation is about intangible behaviour that enhances employees' confidence to accomplish the seemingly impossible, intellectual stimulation denotes transformational leaders' ability to encounter the status quo and persuades followers to do so intellectually (Bass & Avolio 1997; Jandaghi et al., 2009). 'Individualized consideration' refers to the capacity of transformational leaders to give each employee the individualized attention they need and serve as a mentor and coach. The majority of authors agree that inspiring staff members to recognise and work toward bringing about the expected

change and transformational results is a critical component of Bass's (1985) transformational leadership theory for managing change and transformation.

However, opponents argue that Bass's (1985) theory lacks the qualities of transactional leadership theory that frequently directly impact workers' motivation to accomplish specific goals (Burns. 2010; Gilley, McMillan & Gilley, 2009; Mittal, 2015). Furthermore, critics contend that Bass's (1985) theory fails to recognise the benefits of the organisational setting in determining the efficacy of leadership.

In response to Bass (1985), Bass and Avolio (1997) developed the full-range leadership theory, which shows how effective their model is at bringing about change and transformation in any organisational setting and ties transformational leadership to the key elements of transactional leadership theory (Burns, 2010; Mittal, 2015). In addition to the five transformational leadership traits outlined in Bass's earlier theory, Bass and Avolio (1997) included one non-leadership factor, namely *laissez-faire*, and three transactional leadership traits—contingent reward, passive management-by-exception, and active management-by-exception. According to Bass and Avolio (1997), initiating and promoting organisational change and transformation is often easier for transformational leaders who employ a spectrum of transformational-transactional leadership behaviours than for those who employ only transformational behaviours or qualities (Jandaghi et al., 2009; Rubin et al., 2013). In Bass and Avolio's (1997) transactional leadership theory, exchanges and contingent rewards facilitate the charismatic aspect of transformational leadership, thereby enabling the achievement of the desired transformative outcomes.

According to Bass and Avolio (1997), active management by exception is needed in high-risk settings that require management to step in and make the necessary adjustments to achieve the desired results. Passive management by exception is an appropriate strategy where management oversees many employees in a large organisation. Unlike other transformational leadership theories, for instance Schein's (2004) organisational culture and leadership model, Burns' (2010) *laissez-faire* is used when a leadership-related style is not necessary to address a desired organisational change or transformational problem (Grant, 2012).

The 'full-range' transformational leadership theory by Bass and Avolio (1997) strives to provide a suitable perspective on the behaviours that transformational leaders must display to achieve the change and transformation linked to the relevant expansion effort. Despite gaps in different transformational leadership theories, the transformational leadership theory literature shows that transformational leadership fosters effective change and transformation management in response to various diversification activities.

Transformational leadership is a useful technique for positively influencing followers, boosting self-efficacy, and instilling attitudes and values. However, it has certain limitations. According to Chaplin-Cheyne (2021), the effectiveness of the transformational leadership model depends on situational or contextual factors such as geographic dispersion and cultural values. Moreover, Sweet (2023, p. 13) commented: 'The complex dynamics of transformation in higher education, brought on, in part, by the rigidity of its organisational structure coupled with its history and foundation in racism and racist practices, makes achieving sustainable change difficult in higher education.'

3.3. Kotter's Process of Leading Change

Kotter's eight-stage model of change (1996) gained recognition after it had been employed in more than 100 firms. The model specifies a procedure for successfully leading change and avoiding the main challenges faced in failed change efforts. Kotter's approach (1996) emphasises the critical stages of the change process and has two main effects. First, there are several stages to the change process, each taking a significant amount of time to complete. Second, serious errors at any stage can completely derail the momentum of the transformation procedure.

Kotter's eight-step model highlights the essential role of leaders in driving organisational change. The processes can be categorized as generating–consolidating–anchoring. In this respect, Kotter's model looks like Lewin's (1947) unfreezing–changing–refreezing model – see Figure 3.

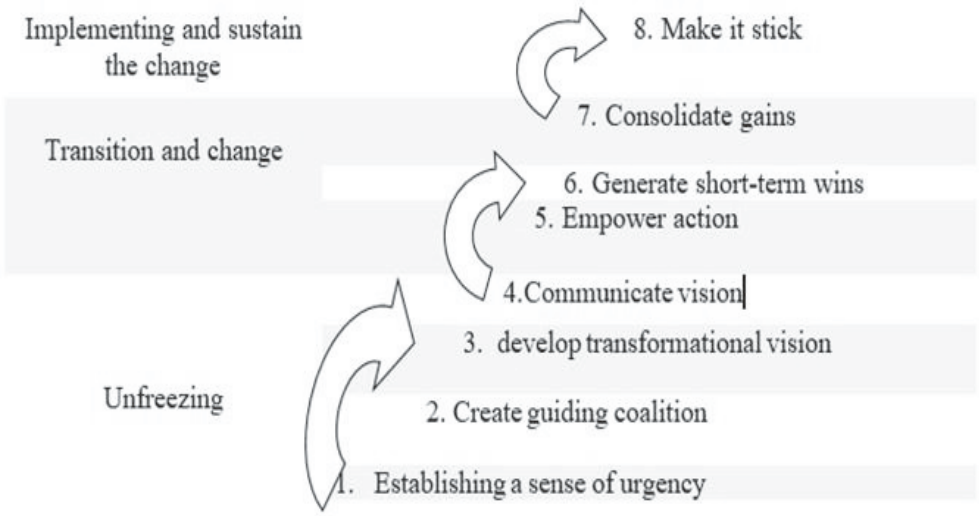

Figure 3. Interconnection of Kotter's eight-stage change model and Lewin's three stages of change (source: Kavanagh & Johnson, 2008)

Step 1 – Establishing a Sense of Urgency

The first step in an organisational change procedure is to instil a sense of urgency while sustaining co-worker partnerships. It is challenging to influence central employees to participate in a change process when the urgency level is low; deprived of an incentive, the effort would collapse. According to Kotter (1995, p. 60), the first stage is crucial since beginning an organisational change programme demands the vigorous involvement of many people; he asserts that 50% of the firms he witnessed, failed at this step.

It is claimed that effective leadership is crucial for creating a sense of urgency. Encouraging people to leave their 'comfort zones' is often difficult especially in a company with an excessive number of managers and not adequate leaders. By definition, change implies the establishment of an entirely novel structure that requires leadership. Change necessitates about 80% leadership and 20% management (Kotter, 1998). According to Kelman (2005, p. 41), one of the critical responsibilities of leaders is to 'create a sense of urgency – a recognition that the organisation's prosperity and even survival are at stake'. Kotter also points out that while an inevitable economic downturn may spur change, 'allowing errors to blow up instead of being corrected, or allowing financial losses to wake people up' heightens the sense of urgency (Kotter, 1995, p. 3). Kotter goes on to comment that 'from what I have seen, the answer is when about 75% of a company's management is honestly convinced that business-as-usual is unacceptable' (Kotter, 1995, p. 2). Kotter acknowledges that leaders may 'create a crisis by allowing a financial loss, allowing errors to blow up instead of being corrected at the last minute, or requiring that people frequently talk to unhappy clients, unhappy suppliers, and dissatisfied shareholders'.

Step 2 – Building the Guiding Team

While changes in business practices are frequently mentioned as organisational changes, Kee and Newcomer (2008) contend that change first occurs at the individual and team levels. Kotter (1995) also observed that massive change practices often instigate with merely one or two participants and that, in effective change programmes, the leadership alliance advance increases. Today, organisations are becoming increasingly complex, even as they become less hierarchical. To be effective in leadership initiatives, leaders must recruit the help of various stakeholder groups (both internal and external) including partners, employees, investors, and regulators (Kotter, 1998).

Kotter suggests that three fundamental characteristics should form the basis of an effective directing partnership in change management: a high level of confidence, a shared goal, and an appropriate composition. A directorial partnership must be based on a lawful power with enough key actors and

supervisors on the board. In addition, the team requires the necessary proficiency in several fields, discipline, work experience, and credibility so that people will follow them, and the leadership should have sufficiently proven leadership competencies (Kotter, 1996). Change attempts with no robust directorial collaboration might achieve noticeable success for a time, but sooner or later antagonism will surface and resist the change (Kotter, 1995).

Step 3 – Creating a Vision

A vision is a portrayal of the future that explains either explicitly or implicitly why people aspire to live that future. It is a crucial tool for proclaiming and defining the direction in which an organisation should continue. Moreover, vision 'helps change managers coordinate activities of various participants and motivates people to take action in the proper direction' (Kotter, 1995, p. 63).

Any organisational change endeavour without a clear vision, according to Kotter (1996), either moves in an incorrect direction or fails completely. A clear vision needs a vibrant comprehension of plans and guidelines but extreme guidelines negatively impact a vision (Kotter, 1995). Kotter outlined the six essential qualities of a successful vision, as follows:

1) Imaginable: it paints a picture of the future;
2) Appealing to the long-term interests of workers, clients, investors, and other parties with a stake in the business;
3) Feasible: it consists of attainable, reasonable aims;
4) Focused: it provides sufficient clarity to aid in decision-making;
5) Adaptable: it provides ample scope for personal initiative and alternate reactions in response to evolving circumstances; and
6) Communicable: it is easy to transfer and can be effectively elucidated within five minutes (Kotter, 1996, p. 72).

Cole et al. (2006, p.352) also discovered 'a three-way interaction between change vision clarity, change appropriateness, and change execution was found to predict managers' job satisfaction, turnover intentions, and role ambiguity.'

Step 4 – Communicating the Vision

Organisational change is only achievable if a large proportion of employees willingly support the company. Though they are dissatisfied with the existing system, people will never compromise as long as they believe that positive change is imminent (Kotter, 1995). Similarly, the actual influence of the vision remains unregulated until most employees approve of its aims and directions. The inability

to convey a vision is sometimes attributed to lower-level employee failure, a common human propensity to react against change, and resistance to accepting new evidence of change (Kotter, 1996).

Managers use all accessible means of communication to promote a vision in practical transformation activities (Kotter, 1995) as communication is critical to change attempts. Change requires sound decisions regarding the benefits of change for productivity and quality and clear communication of the decision points (Richardson & Denton, 1996). According to Richardson and Denton (1996, p. 210), 'real communication comes from deeds, not messages'.

Step 5 – Empowering the Action and Removing Obstacles

The fifth stage marks the end of the generating phase and the beginning of the consolidation phase. Effective completion of the first four phases of the change process hinges on many the empowerment of many people. The fifth step's purpose is to enable the practical engagement of a large proportion of people in eliminating as by eliminating any obstacles to the implementation of the change vision as possible (Kotter, 1996). Simply put, empowerment implies giving people the ability to do what has to be done during the transition process and providing 'employees with the knowledge, skills, opportunity, autonomy, self-confidence, and resources to administer themselves and be accountable for the change process' (Gill, 2002, p. 308). Kotter (1996, p. 102) highlighted four critical obstacles to empowerment: structural barriers, lack of needed skills, barriers related to personnel, barriers related to information systems, and managers' discouraging actions regarding the implementation of a new vision. To overcome these barriers, change managers should remove structural barriers, provide employees with training that will give them the necessary competencies and belief in the change, integrate information and personnel schemes with the vision, and challenge managers who undermine staff.

Step 6 – Creating Short-Term Wins

Short-term objectives and victories guarantee change because real change takes time. Without short-term gains, people may abandon their efforts, lose hope, and/or become resistant to change (Kotter, 1995). Short-term victories must be unambiguous and visible. Recognising clear short-term gains short-term wins boosts employee pressure and commitment to the change initiative (Kotter, 1996).

Step 7 – Consolidating Improvements

While short-term victories are vital for communicating urgency, publicizing wins too quickly can be catastrophic. In addition, it takes time for changes to impact an organisation's culture, and

pronouncing success too quickly will help stimulate unreasonable or political confrontation and revert to the brittle new shape (Kotter, 1995). Laframboise et al. (2002) argued that 'managing people is about managing feelings' and identified this as another paradigm of resistance to change. According to Laframboise et al. (2002), signoficant portion of employees perceive change as a fundamentally personal and emotional experience, making it challenging to accept, primarily if the change process affects their work environment. Employees who are resistant to change can significantly stymie change attempts. Kotter (1996) also discusses numerous activities that can increase consolidation, including 'increasing credibility to change systems, structures, and policies that do not fit the vision; hiring, promoting, and developing employees who can implement the vision; and giving a boost to the process with new projects, themes, and change agents' (p. 21).

Step 8 – Anchoring New Approaches in the Culture and Making Change Stick

Organisational culture refers to employees' shared beliefs, values, and norms of behaviour. Introducing new approaches to established cultures can be a challenging endeavour. A common belief is that, for a change effort to be effective, the company culture must first change. However, transformation typically occurs last rather than first (Kotter, 1996). Cultures with a strong status quo orientation can make it difficult to implement innovative techniques (Kee & Newcomer, 2008). A new way of doing business becomes ingrained in the organisation's culture when it becomes the norm. According to Kotter, establishing a career structure that advances employees into the subsequent levels of top management and into positions that embody the new approach, as well as implementing an intentional effort to emphasise the significance of new behaviours, methods, and beliefs that enhance effectiveness, are two essential components of institutionalising change in corporate culture (Kotter, 1995).

Kotter's eight-step model of change presents a dynamic path for leadership paradigm and has numerous advantages. Some advantages include the model's simplicity and its provision of a clear and achievable transformation process. In addition, the phases are easily understandable and provide guidance throughout the process. This model emphasises acceptance and readiness for change, making the transition smoother.

While Kotter's model has numerous advantages, it has certain drawbacks in terms of implementation including its emphasis on linear and more predictable change processes as opposed to complex ones, and its applicability to businesses rather than public organisations as it ignores politics, hierarchy, and bureaucracy, which are the pillars of government (Aldemir, 2010). This model may be better suited to business enterprises than public entities such as universities. The examples in Kotter's studies are typically private sector firms, with no consideration given to fundamental government characteristics

like politics, hierarchy, and bureaucracy. Additionally, Kotter (2008, p. 15) claims that 'a true sense of urgency is rare because it is not a natural state of affairs, and must be created and recreated'. Some procedures are challenging to execute in the government sector due to the political impact on the work, like increasing urgency by inciting a crisis or at the very least by ignoring some flaws. The government is unique because it is political, as noted by Appleby (1945). Public administrators must also be aware of the unpredictability and non-linearity inherent in public administration (Kiel, 1994).

Furthermore, Kotter's approach has also been considered "rigid" and blamed for not being applicable to all kinds of changes. Other criticisms have included: 'some steps are not relevant in some contexts', 'dealing with difficulties during change management', and 'difficulties of studying change management projects' (Steven et al., 2012). Therefore, Kotter's linear model is less suitable for public organisations than complexity theories (see Appendix 2 for a synopsis of Kotter's model).

3.4. Bolman and Deal's Four-Frame Model of Leadership

Bolman and Deal's (1984, 1992a, 1992b, 1997, 1999, 2003, 2008, 2013, 2017, 2021) reframing paradigm looks at leadership from the viewpoints of structural, human resource, political, and symbolic perspectives. Bolman and Deal created their four-frame model by evaluating the literature and testing it using empirical data. Structural change management tactics include communicating and realigning formal responsibilities and connections to avoid uncertainty and unpredictability. Since change destroys current structural arrangements, it creates vagueness, confusion, and distrust. As a result, people no longer know what to expect from others or what to expect from themselves. Everyone may believe that someone else is in command while, in reality, no one is.

A change management strategy taking a human resource view includes providing training and support to those who seem incapable, disadvantaged, and powerless due to the change; a political frame includes coping with disputes and creating new partnerships; and a symbolic perspective involves creating rituals. Leaders can apply one (single), two (dual), or three or more (multiple) of these approaches when managing change. Table 2 lists the barriers to change and the critical methods to utilise based on the four viewpoints.

Table 2. Reframing organisational change

Frame	Barriers to Change	Essential Strategies
Structural	Loss of direction, clarity, and stability; confusion, chaos	Communicating, realigning, and renegotiating formal patterns and policies
Human resource	Anxiety, uncertainty; people feel incompetent and disadvantaged	Training to develop new skills; participation and involvement; psychological support
Political	Disempowerment; conflict between winners and losers	Developing arenas where issues can be renegotiated and new coalitions formed
Symbolic	Loss of meaning and purpose; clinging to the past	Creating transition rituals; mourning the past; celebrating the future

Source: Bolman and Deal (2021, p. 394)

3.5. Theoretical Framework of this Study

Of the different models and theories discussed in the preceding section, Bolman and Deal's four-frame model was selected as the theoretical basis for this investigation to address the research questions. As discussed in the previous chapter, HEIs have unique features that need to be considered when examining them using Bolman and Deal's four frames. For example, HEIs, as formal organisations, must make rational decisions (Scott, 2003), necessitating the use of a structural framework. Higher education institutions, like open systems (Gornitzka, 1999), rely on the outside environment for scarce resources. The external environment comprises diverse stakeholders (Jongbloed et al., 2008), so that universities need to be able to negotiate and maintain a balance between the internal and external settings, necessitating the use of a political lens. HEIs, as academic and research environments, are significantly more vulnerable to collegial relationships and professional bureaucracy (Mintzberg, 1980), which brings to mind the human resource frame. A higher education institution encompasses a community of practice and cultural system, which invites the use of the symbolic framework. As a result, leading HEIs requires that leaders view challenges from multiple perspectives. Hence, Bolman and Deal's four-frame model enables leaders to employ appropriate frames of reference before adapting their behaviour to the nature of a challenge.

Unlike the models of Lewin, Burns, and Kotter, Bolman and Deal's model is suitable for large and complex organisations, promotes comprehensive perspectives as it views issues through different lenses rather than being mono-directional, and is flexible because it takes into account the bureaucratic, political, human, and cultural dimensions of an organisation. According to Bolman and Deal (2021), four-frame approach, leaders should view organisational issues through four lenses rather than a single lens to better address numerous diversified and ambiguous problems. Their paradigm has four dimensions: structural, human resource, political, and symbolic frames.

The structural framework is concerned with formal organisational norms and hierarchies. Its assumptions centre on objectives, roles, strategies, policies, technology, and the environment. Bolman and Deal (2021) define structural leaders as social architects who adapt structure to jobs, technology, and the environment.

The human resource frame emphasises the needs, skills, and relationships within an organisation. Human resource leaders place a premium on feelings and relationships and lead on the basis of support and empowerment. Essentially, they are concerned with harmonizing organisational and human demands (Bolman & Deal, 2021).

The political frame sees organisations as situations where people pay attention to power, conflict, struggle for resources, influence, and benefits among participants. The political frame stresses the inevitable conflict and exploitation of an organisation's limited resources by various factions and interests. Leaders with a political orientation are expected to be good at advocacy and have political acumen, and their main challenges will be developing an agenda and building a power base, as well as resolving conflicts and completing projects successfully (Bolman & Deal, 2021).

The symbolic frame emphasises an organisation's intangible features such as 'culture, myth, meaning, metaphor, ritual, ceremony, stories, and heroes' (Bolman & Deal, 2021, p.20).

According to Bolman and Deal (2021), the model's dimensions can be adapted to the various situations of any organisation. Leaders' behaviour may favour one of the four frames, and each frame may be appropriate for a specific situation, but employing a single framework may limit leaders' capacity to address issues successfully. As a result, employing several frames allows people to see the same issue through multiple lenses or from many perspectives.

3.5.1. Assumptions of Bolman and Deal's Frames

Based on the four dimensions—structural, human resource, political, and symbolic—the underlying assumptions of Bolman and Deal's four-frame model are addressed in greater depth in the succeeding subsections.

3.5.1.1. Assumptions of the structural frame

The fundamental assumptions underlying the structural frame replicate confidence in logic and the belief that an appropriate assortment of jobs and duties can reduce perplexing personal stagnation and maximize people's work success. The structural approach advocates assigning people to appropriate jobs and relationships. Furthermore, it asserts that that well-designed formal structures foster shared objectives while accommodating individual variations.

The structural frame's key assumptions are as follows (Bolman & Deal, 2021, p.50).

i) Organisations exist to achieve established goals and objectives and devise strategies to reach those goals.
ii) Organisations increase efficiency and enhance performance through specialization and appropriate division of labour.
iii) Suitable forms of coordination and control ensure that diverse efforts of individuals and units mesh.
iv) Organisations work best when rationality prevails over personal agendas and extra neous pressures.
v) Effective structure fits an organisation's current circumstances (including its strategy, technology, workforce, and environment).
vi) When performance suffers from structural flaws, the remedy is problem solving and restructuring.

3.5.1.2. Assumptions of the human resource frame

The human resource perspective originated through the pioneering efforts of Follett (1918) and Mayo (1933, 1945), who challenged the prevalent administrative belief that employees were with privileges other than their wages and that their role was to work diligently and obey commands. Human resource pioneers rejected this viewpoint for two reasons: it was unjust and based on poor psychology. They contended that the abilities, perspectives, enthusiasm, and dedication of people are critical assets that may build or ruin a business.

The four critical human resource assumptions that highlight this linkage are the following:

i) Organisations exist to serve human needs rather than the converse.
ii) People and organisations need each other. Organisations need ideas, energy, and talent; people need careers, salaries, and opportunities.
iii) When the fit between individual and system is poor, one or both suffer. Individuals are exploited or exploit the organisation—or both become victims.
iv) A good fit benefits both. Individuals find meaningful and satisfying work, and organisations get the talent and energy they need to succeed. (Bolman & Deal, 2021, pp.121-122).

The human resource frame's underlying assumptions centre on two fundamental issues. On the one hand, organisations must ask how they attract and keep people who have the talents and dispositions to execute the job, and on the other hand, employees who are interested to understand how well the organisation will fit them. These two issues are strongly linked since 'fit' is determined by at least three factors: '(1) how well anorganisation responds to individual desires for useful work; (2) how

well jobs let employees express their skills and sense of self; and (3) how well work fulfills individual financial and lifestyle needs (Cable & DeRue, 2002; Bolman & Deal, 2021, p.122).

Bolman and Deal (2021) detailed strategies to be defined and implemented by an organisation using the human resource framework. The strategies emphasise designing and executing a human resource strategy, employing the right people, retaining recruited employees, investing in employee development, empowering employees, and promoting diversity. These fundamental human resource methods are summarized in Table 3.

Table 3. Basic human resource strategies

Human Resource Principle	**Specific Practices**
Build and implement a human resource strategy	Develop and share a clear philosophy for managing people
	Build systems and practices to implement the philosophy
Hire the right people	Know what you want
	Be selective
Retain employees	Reward well
	Protect jobs
	Promote from within
	Share the wealth
Invest in employees	Invest in learning
	Create development opportunities
Empower employees	Provide information and support
	Encourage autonomy and participation
	Redesign work
	Foster self-managing teams
	Promote egalitarianism
Promote diversity	Be explicit and consistent about the organisation's diversity philosophy
	Hold managers accountable

Source: Bolman and (2021), Exhibit 7.1. Basic Human Resource Strategies, p. 143

3.5.1.3. Political assumptions

According to the political frame, organisations are dynamic settings with constant competition stemming between individuals and groups pursuing their own goals. Bolman and Deal (2021,p.191) summarizes the following five assumptions of political viewpoint: i) 'organisations are coalitions of different individuals and interest groups;' 'ii) 'coalition members have enduring differences in values, beliefs, information, interests, and perceptions of reality;' iii) 'most important decisions involve allocating scarce resources—deciding who gets what;' iv) 'scarce resources and enduring differences

put conflict at the centre of day-to-day dynamics and make power the most important asset;' and v) 'goals and decisions emerge from bargaining and negotiation among competing stake.'

3.5.1.4. Symbolic assumptions

Bolman and Deal (2021) describe the symbolic frame as encompassing concepts from various fields, such as organisation theory and sociology (Selznick, 1957; Blumer, 1969; Schutz, 1967; Clark, 1975; Corwin, 1976; Hatch & Cunliffe, 2013; March & Olsen, 1976; Maitlis & Christianson, 2014; Meyer & Rowan, 1978; Weick, 1976; Davis et al., 1976; Hofstede, 1984), political science (Dittmer, 1977; Edelman, 1971), magic (O'Keefe, 1983), and neurolinguistic programming (Bandler & Grinder, 1975). Traditionally, anthropologists have focused on the significance of symbols in human life (Mead, 1928, 1935; Benedict, 1934; Goffman, 1974; Ortner, 1973; Bateson, 1972). In the beginning of the 1980s, cultural theories began to be applied to businesses, healthcare, and nonprofit organisations in the literature (Deal & Kennedy, 1982; Peters & Waterman, 1982; Schein, 1992).

The symbolic frame condenses concepts from several sources into five hypotheses as follows:

i) what is most important is not what happens but what it means;
ii) Activity and meaning are loosely coupled; events and actions have multiple interpretations as people experience situations differently;
iii) In the face of uncertainty and ambiguity, symbols arise to help people resolve confusion, find direction, and anchor hope and faith;
iv) Events and processes are often more important for what they express or signal than for their intent or outcomes. Their emblematic form weaves a tapestry of secular myths, heroes and heroines, rituals, ceremonies, and stories to help people find purpose and passion; and
v) Culture forms the superglue that bonds an organisation, unites people, and helps an enterprise to accomplish desired ends (Bolman Deal, 2021, p.254).

According to Bolman and Deal (2021, p.254), 'the symbolic frame sees life as allegorical, mystical, and more serendipitous than linear.' Furthermore, organisations are viewed as dynamic pinball machines that are constantly changing. As a result, problems players, judgements, and regulations navigate a flexible maze of cushions, obstacles, and traps.

3.5.2. Applications of Bolman and Deal's four-frame model to higher education

Bolman and Deal's four-frame theory had a significant effect on Birnbaum's work on academic leadership. In *How Colleges Work*, Birnbaum (1988) describes bureaucratic, collegial, political, and symbolical models of HEIs. Birnbaum's four approaches result from applying Bolman and Deal's

four frames to the higher education setting (Vuori, 2011, p. 72). Different researchers including Bolman and Deal (1991), Dong (2018), Boff (2015), Wilson and Sy (2021), Sasnett and Ross (2007), Thompson (2000), Zare (2023), Khanal et al. (2023), Al Khaja and Dammak (2021), Garipağaoğlu (2016), and Tan et al. (2015) have applied Bolman and Deal's four frames to various higher education issues. Some of the studies using the model are discussed below.

Bolman and Deal (1991) conducted frame-related studies which are among the critical studies utilising four-frame model. In their article they reported two investigations on how leaders use frames. The first study was qualitative and focused on how leaders frame their experiences. They had collected written narratives from three groups: 145 American higher education administrators, 63 American school administrators, and 20 Singapore school administrators. They found that all four frames were used for only 5% of issues, and fewer than three frames were used for 25% of issues.

The second study by Bolman and Deal (1991) was quantitative, focusing on perceptions regarding leaders. They used a two-part instrument, one part focusing on leaders' self-evaluation and the other on co-workers' ratings using the frames. The sample groups remained identical to those used in the qualitative study, with the inclusion of a corporate sample of 90 senior managers from multinational businesses in 15 countries. Colleagues were given the opportunity to evaluate leadership and management performance, as well as frame the utilisation of participating managers.

Based on their quantitative study, Bolman and Deal (1991) declared the validity of the four-frame theory. Results from the quantitative survey's factorial analysis were in line with the four frames. Their findings also support their definition of management and leadership. This shows that leadership effectiveness was consistent with colleagues' colleagues' scores on their utilisation of the political and symbolic frames. With the exception of the corporate sample, all samples showed a correlation between management effectiveness and the use of the structural frame.

Moreover, Bolman and Deal's (1991) regression analysis revealed statistically significant differences in effective patterns for managers and leaders across the four different samples: corporate middle managers, higher education administrators, US school administrators, and Singapore school administrators. The table below illustrates how management performance was mostly associated with using the structural frame, with the exception of the corporate sample, and how leadership effectiveness was consistently connected with the use of political and symbolic leadership frames in all samples. Unlike the others, the higher education sample emphasised the use of all frames in leadership effectiveness.

Table 4. Summary of effective patterns

Variable	Corporate Middle Managers	Higher Education Administrators	US School Administrators	Singapore School Administrators
Effective managers are highest on	Political Human resource	Structural Political Human resource	Structural Symbolic	Symbolic Structural
Effective leaders are highest on	Symbolic Political Human resource	Symbolic Political Human resource Structural	Symbolic Political	Political Symbolic

Source: Bolman and Deal (1991, p. 513)

Dong (2018) explored the influence of Bolman and Deal's four frames on reframing leadership in Chinese merged higher education institutions using a mixture of both quantitative and qualitative approaches. Dong's study examined the effects of mergers on leadership and how leadership orientation impacts the integration of a merger. On the one hand, the study discussed how institutional leaders could reframe their leadership to better address the challenges of a merger. On the other hand, it aims to improve their leadership effectiveness (p. iv).

Vuori (2011) employed Bolman and Deal's four frame model in an article entitled 'Leadership Frames of Programme Directors at Finnish Universities of Applied Sciences'. The study employed a qualitative approach, conducting interviews with middle-level managers. Vuori reflected in her study that all the programme directors interviewed applied the structural and the human resource leadership frames, which can be considered a 'minimum requirement to survive in a middle management position at a Finnish UAS'. However, all four frames are relevant.

The model was also utilised by Boff (2015) to investigate the academic library administrators' leadership orientation. Boff carried out a quantitative a quantitative investigation to identify frame preferences among library administrators and how these preferences were influenced by their role, total years of administrative experience, and self-perceived effectiveness in their present role. According to Boff, academic library administrators generally exhibit for the human resource perspective. However, upper-level and middle-level administrators have different preferences. Upper-level administrators favoured the human resource perspective, preceded by the structural, political, and symbolic frames. Middle-level administrators on the other hand, favoured the human resource frame, preceded by the structural, symbolic, and political frameworks. Boff also found that an administrator's frame score for the least desired political and symbolic frames are potentially affected by their perceived effectiveness in their current role from three to six points.

Wilson and Sy (2021) employed the model to 'analyse organisational change processes and evaluate the progress and outcomes of an educational innovation initiative,' specifically 'the use of iPads in

curricular practices to enhance pedagogical strategies and student learning outcomes at a university in the Gulf'. They used an ethnographic case study methodology using 'direct observations, informal interviews, holistic field notes, and documents' as data-gathering instruments. Their study revealed that the main areas of leading and managing the iPad innovation initiative were substantially focussed on the human resource, structural, and political frames while the symbolic frame had less influence.

According to Boff (2015, p. 34), Bolman and Deal's (1984, 2003) leadership orientation model has been applied in several disciplines (Mosser & Walls, 2002; Sasnett & Ross, 2007; Thompson, 2000). Mosser and Walls (2002) investigated nursing faculty perceptions of their department chairs' use of leadership frames and found that 49.8%, 43.5%, 32.4%, and 16.6% of faculty members believe their department heads employ the human resource frame, structural frame, political frame, and symbolic frame, respectively.

Sasnett and Ross (2007) investigated 97 health information management programme directors' self-perceptions of their preferred 'leadership styles or frames, the number of leadership frames employed, and the relationship between leadership frames and their perceptions of their effectiveness as a manager and a leader'. Sasnett and Ross's (2007) study found that programme directors are confident about their human resource (75%), structural (62.5%), symbolic (35%), and political (26.1%) skills. The study also revealed that these skills were linked to their perceived management and leadership effectiveness.

Thompson (2000) investigated gender differences in terms of 'balanced' or 'unbalanced' leadership orientations, leadership characteristics, and the perceived effectiveness of educational leaders based on the responses of their subordinates using Bolman and Deal's (1991, 1997) four-frame leadership theory and Quinn's (1988) competing values model. Despite the stereotypes associated with earlier research, Thompson's study shows that differences in the perceived effectiveness of educational leaders across the three leadership groups were equally valid for both male and female leaders. Additionally, educational leaders were thought to be equally effective in their respective organisatio. Furthermore, in contrast to earlier research-based findings, no statistically significant difference was found between the leadership traits of men and women. Many research studies have employed Bolman and Deal's four-frame model, using different methodologies and producing different results. Some of these studies are listed in Table 5 for further reference.

Table 5. Higher education studies employing Bolman and Deal's framework

Researcher(s), year	Target group, sample	Method	Frame utilisation
Zare (2023)	Academic department chairs (12)	Qualitative, semi-structured interviews	Four frames
Khanal et al. (2023)	University leaders (5), faculty members (4), technical staff (1), and students (10)	Qualitative, semi-structured interviews	Four frames
Al Khaja & Dammak (2021)	Leadership styles in higher education in Arab countries (in publications)	Qualitative, using literature review	One or two frames (structural and/or human resource)
Garipağaoğlu (2016)	20 academic leaders (6 deans, 9 vice deans, 3 institute directors, 2 assistant directors)	Qualitative, semi-structured interviews	Three frames, without the political frame
Tan et al. (2015)	Vice-chancellor and six staff reporting directly to him	Qualitative, semi-structured interviews, document analysis, and observations	Three frames, without the political frame
Clark & Lindahl (2014)	Academic department chairs (48: 25 men and 23 women)	Quantitative leadership orientations survey (descriptive statistics; frequency, percentage, mean, standard deviation, and inferential statistics; independent Samples t-tests and analyses of variance	Four frames
Flumerfelt & Banachowsk (2011)	125 respondents: 48% professional/administrative staff (including secretarial and technical/clerical staff), 42% department management, 6% auxiliary services/auxiliary support staff, and 4% leaders/supervisors	Quantitative, online survey, prior to lean training, to identify leadership paradigms of concern by rank, and by significant paired association, using chi-square tests and the Yates' correction	Three frames, without the symbolic frame
Tull & Freeman (2011)	478 student affairs administrators	Quantitative Organisational Frames Analysis Questionnaire (OFAQ), and Locus of Control Inventory, developed by Pareek (1992)	Three frames (insignificant; 1.8% for the political frame
Monahan & Shah (2011)	94 presidents of Masters I institutions (254 returned responses)	Quantitative, the 1990 Bolman and Deal leadership orientations (self)	Four frames

The data in Table 5 shows that various researchers have applied Bolman and Deal's four-frame model through quantitative and mixed qualitative methods. The summary table indicates that the leaders studied used Bolman and Deal's frames in both single and multiple combinations. The studies also revealed both the leadership level and institutional level of analyses made.

3.5.3. Application of Bolman and Deal's four-frame model in this study

The following two research questions guided this study:

1. How are the research university vision and the path towards it articulated in Bahir Dar University's strategic documents?
2. How are the research university vision and the path towards it perceived thematically among academic leaders? What are the major challenges academic leaders perceive in the journey towards the research university vision?

The first research questions emphasise how the concept of a research university and the path towards it are articulated in strategic documents and perceived in the context of BDU. The second question explores the top and middle-level academic leaders' perceptions towards the research university vision, the primary activities they perceive as necessary and the challenges they faced as they strive to achieve the goal of establishing a structure that supports research. In terms of the structural frame, these include policies, procedures, and rules that promote research. The human resource frame encompasses enhancing the quantity and quality of research faculty, the political frame involves convincing staff members to accept the vision, resolve conflicts, and create different forms of partnerships with external stakeholders, and the symbolic frame includes charismatic models and developing a research culture. Bolman and Deal's (2021) four-frame model is used as a theoretical framework at this stage and serves as a tool to conceptualize the leadership activities performed and the challenges encountered on the journey toward the research university vision. Challenges can be categorized as internal or external challenges: internal challenges were discussed in terms of Bolman and Deal's four frames, as with the major activities.

The assumption behind this is that leadership significantly contributes to stimulating effective organisational change. Similarly, Bolman and Deal (2021) asserted that organisations can enhance their 'chances of success with an artful appreciation of how to use the four lenses to understand and influence what is really going on' (p. 42). The implications of using the Four Frame Model in the research university vision are that leaders should conceptualize the attributes of being a research university through the four frames, or 'lenses', to get a comprehensive understanding. The key component of Bolman and Deal's framework is to support leaders in avoiding the trap of seeing and responding to situations solely through one lens or frame. This model asserts that a leader who adheres to a single frame is destined to act incorrectly and ineffectively because no single frame or lens is helpful in every context. Instead, the leader must apply the proper conduct and frame of reference for every situation.

In this study, it is assumed that leaders on the path to achieving the research university vision may be concerned with staff motivation and commitment. They should consider adopting a symbolic and/or human resource approach (frame). To clarify confusion around priorities and responsibilities aligned with the university's vision, leaders be more successful by adopting structural or political orientations (frames). The likelihood of successful outcomes from symbolic and political leadership behaviours (frames) increases if the workforce is unsure or anxious about their path.

Based on the above assumptions, this study explores the activities performed and challenges faced by university leaders in applying the four frames. The practice of the structural frame is evident in activities aimed at establishing an organisational structure that facilitates coordination of activities, creates a conducive environment for quality teaching, and fosters quality research. Therefore, in this study, the structural frame pertains to the dimensions of leaders' activities related to the formulation and execution of policies, strategies, goals, tasks, communication lines, standards, systems, and procedures.

Similarly, leaders' practice of the human resource frame is reflected in their efforts to select qualified and committed academic staff for quality teaching and research, develop academic staff for quality teaching and research, and reward academic staff who demonstrate commitment and activity in quality teaching and research. Therefore, in this study, the human resource frame refers to leaders' efforts to take into account workers' demands for interpersonal interaction, personal development, and happiness at work.

The study explores leadership activities within the political frame, focusing on initiatives taken to create a mutually understanding environment, resolve conflicts over scarce resources, and address differences in values. In this context, the political frame refers to leaders' efforts to foster harmony among members of their academic unit (university) and ensure fair distribution of resources and decisions.

The study also examines the symbolic frame in leadership practice, looking at how leaders work to establish a culture of quality teaching and research and serve as role models for others in these areas. Within this frame, leaders engage employees in the change process by inspiring a sense of purpose, meaning, and motivation regarding their vision.

3.6 Summary

Theories or models of change are essential for helping change agents in higher education be productive and successful. These theories and models serve as filters or frames of reference for understanding the what, why, and how of the change process. As a result, one of the key elements

influencing the effectiveness of change leaders is selecting and implementing the most appropriate change model.

Only four theories have been discussed: Lewin's change model, Kotter's eight-stage change model, the transformational leadership theory, and Bolman and Deal's four-frame model. However, there may be other theories not covered in this discussion. Lewin's (1946) framework is a comprehensive paradigm for deliberate, well-considered transformation. This model primarily focuses on reducing employee resistance to change thereby fostering a conducive environment for transformation. Lewin's model breaks down the change process into three steps: refreezing the current state of change to sustain it, moving toward a new state (change), and unfreezing the status quo.

Kotter's eight-step model is an alternative paradigm for change. Kotter presents an eight-step model for leading change, with a focus on leadership as a fundamental component. The titles 'generating-consolidating-anchoring' and 'unfreezing-changing refreezing' correspond to the eight steps of Kotter's paradigm. The second idea discussed is transformational. The transformational leadership theory presupposes that leaders and followers motivate one another to perform to the appropriate standard of expectations in order to effect organisational change.

Bolman and Deal's four-frame model is the fourth change leadership paradigm discussed in this body of work. According to this approach, leaders must view their work through four lenses to manage organisational change effectively: structural, human resources, political, and symbolic. By utilising the four lenses, leaders can address the various facets of the organisation and gain a broader perspective (rules and regulations, human needs, potential conflicts, applicable cultures, and the effect of role models). Lastly, the study's theoretical framework—Bolman and Deal's four-frame model—was selected from the four change leadership models presented. Its use in higher education and how the chosen framework is to be applied in the context of this study are illustrated.

4. METHODOLOGY

This chapter discusses the methodology of the study, covering various topics such as the study context, research paradigms, the approach, and the design. Specifically, it addresses the study participants, data collection methods, analysis, trustworthiness, and ethical considerations.

4.1. Bahir Dar University as a Context

Bahir Dar University is located in Bahir Dar city, the capital of the Amhara National Regional State, 562 km northwest of Addis Ababa, the capital of Ethiopia. It is one of the first-generation (senior) universities in the country. The present BDU resulted from the merger of two academic institutions, Bahir Dar Polytechnic Institute and Bahir Dar Teachers' College. These two higher learning institutions were combined to form the new BDU as an outcome of the Council of Ministers Regulation No. 60/1999. The university was officially opened on May 6, 2000 (Fantahun, 2013).

Bahir Dar University is currently amongst the biggest universities in the Ethiopia. In the 2019/2020 academic year, it increased its enrolment capacity to 48,115 across 366 programs, supported by 2,481 academic staff and 5,431 administrative personnel. Bahir Dar University comprises 15 academic units: five colleges, two faculties, four institutes, two schools, and two academies.[1] Moreover, as indicated in the university's fact book, BDU hosts 14 research centres or institutes[2] (BDU, 2023).

In 2010, BDU outlined the vision to become among the top ten research universities in Africa by 2025. In pursuit of this goal, BDU has implemented change practices by identifying priorities and

[1] The College of Agriculture and Environmental Studies (CoAES), the College of Business and Economics (CoBE), the College of Education (CoE), the College of Health and Medical Science (CoHMS), the College of Science (COS), the Faculty of Humanities (FoH), the Faculty of Social Sciences (FoSS), the Bahir Dar Institute of Technology (BIT), the Ethiopia Institute of Textile and Fashion Technology (EiTEX), the Institute of Land Administration (IoLA), the Institute of Disaster Risk Management and Food Security Studies (IDRMFSS), the School of Law (SoL), the School of Earth Science (SoES), the Sport Academy (SA), and the Maritime Academy (MA).

[2] The Geospatial Data And Technology Centre, the Energy Research Centre, the STEM Centre, the ICT for Development Centre, the Textile Production Research Centre, the Textile Processing Product, the Research and Innovation Centre, the Basic Engineering and Science Research and Innovation Centre, the Textile Chemistry Research and Innovation Centre, the Apparel Production Research and Innovation Centre, the Biotechnology Research Institute, the Blue Nile Water Institute, the Entrepreneurship Development and Incubation Centre, the Institute of Pedagogical and Education Research, the Abbay Language and Cultural Studies Institute, and the Economic Research Institute.

developing strategic plans. The first strategic plan lasted from 2011 to 2015, followed by a second plan from 2015 to 2020. After the MoSHE's differentiation study of 2020, BDU reviewed its vision and proposed a ten-year strategic plan to become 'one of the leading research-intensive universities in Africa and the first choice in Ethiopia by 2030' (BDU., 2020, p. 10).

During the first two strategic plan periods, BDU achieved significant improvements, leading to its top ranking in the MoSHE's 2020 differentiation study, despite facing numerous challenges (BDU, 2020). Hence, this study aims to investigate how leaders respond to the research university vision by establishing a research-friendly structure, enhancing research staff capabilities, fostering a research culture, securing sustainable resources, and effectively managing conflicts.

Bahir Dar University has been chosen as an exemplary university whose institutional leadership serves as a research context. The university was selected as a case for this study due to its pioneering role in aspiring to a research university vision in Ethiopia. Bahir Dar University was the first to explicitly announce its ambition to become one of Africa's research universities by 2025, despite other universities being as old. However, following its differentiation study in 2020, the MoSHE categorized universities into three groups: research universities, universities of applied sciences, and comprehensive universities. As a result, eight universities, including BDU, are aspiring to become research universities. Therefore, this dissertation intentionally focuses on BDU for two reasons. First, BDU had been exploring the research university vision even before the nation addressed the matter in its Education Sector Development Plan. Second, it would not be fair to combine the other universities with BDU to examine their path toward the research university vision, as BDU has been pursuing its goal before the MoSHE declared the research university mission in 2020.

4.2. Research Philosophy and Paradigms

When conducting research, it's essential to thoroughly understand the paradigm and its components. The components of a research paradigm include the fundamental assumptions, norms, and values held within each paradigm. According to Guba and Lincoln (1984), the fundamental assumptions that characterise a research paradigm are readily articulated based on the answers to following three basic philosophical questions: 1) the ontological question (what is the nature of reality); 2) the epistemological question (what are the beliefs about knowledge and what can be known); and 3) the methodological question (how can the researcher discover what he/she believes can be known). Understanding the meanings of each component of the paradigm helps the researcher to determine which components to choose and be guided by the assumptions, beliefs, norms, and values of the chosen paradigm.

Parallel to the three-component philosophical paradigm (fundamental questions), there are four worldviews in terms of which a researcher can address these three fundamental questions (Creswell & Clark, 2011). According to Creswell and Clark, the four worldviews are post-positivism, constructivism, participatory, and pragmatism.

According to Creswell and Clark (2011, p.77), post-positivism is mostly related to quantitative approaches in which researchers make knowledge claims in accordance with '(1) determinism or cause-and-effect thinking; (2) reductionism, by narrowing and focusing on select variables to interrelate; (3) detailed observations and measures of variables; and (4) the testing of theories that are continually refined.'

Constructivism operates from a distinct viewpoint and is closely linked to qualitative methodologies. The contextual comprehension or meaning of phenomena is arrived at via participants' subjective views. When participants give their subjective understandings, they express meanings moulded by their own individual histories as well as their social interactions with others. In constructivism, research is designed to explore both individual viewpoints and wide patterns.

Participatory worldviews are more likely to be influenced by political anxieties and are more inclined to qualitative approaches than quantitative ones. These worldviews address societal concerns like empowerment, exclusion, dominance, and patriarchy through researchers' collaboration and change orientation.

The fourth worldview is pragmatism, which primarily seeks to apply mixed methods research. The main focus of pragmatism is on the outcomes of research and the relevance of the question being asked rather than the methods used. Pragmatism involves using multiple methods of data collection in a single study rather than relying on a single method. This worldview primarily employs a mixed-methods research approach rather than relying solely on either quantitative or qualitative methods.

Though the four worldviews have common elements, they differ in their stances on the nature of reality (ontology), how we acquire knowledge (epistemology), and the research process (methodology) (Creswell., 2009; Lincoln & Guba, 2000, as cited in Creswell & Clark, 2011). These differences have implications for researchers when choosing the appropriate research approach, research design, and method of data collection for conducting and reporting their studies.

In this context, the post-positivist worldview believes in the existence of a single, objective, and true reality governed by unchangeable natural cause–effect laws, which is not bound by time or context. Positivists tend to accept or reject hypotheses based on this belief. The constructivist worldview

acknowledges the existence of multiple realities, where researchers gain insights from the perspectives of participants through multiple interviews. In the participatory paradigm, researchers discover reality through negotiation within the political context. The findings of research in the participatory paradigm are based on political negotiation with participants. Pragmatists believe in the existence of both singular and multiple realities.

The worldviews also differ in their explanation of research processes and methodologies. In the post-positivist paradigm, the researcher proceeds from theory to hypothesis (top-down) to collecting data that will help them accept or reject the theory. In the constructivist paradigm, the researcher follows a 'bottom-up' approach. The researcher uses participants' perspectives to construct wider themes and develop a theory that intersects with these themes. In the participatory paradigm, the researcher views participants in the study as active collaborators in the research process, involving them in question formation, data collection, data analysis, and the implementation of research results to solve problems. The pragmatism paradigm tends to combine both top-down (deductive approaches) and bottom-up (inductive approaches) where the researcher mixes quantitative and qualitative data sets. The connections between philosophical questions and research paradigms are presented in Table 6.

Table 6. Comparison between philosophical questions and research paradigms

Questions for analysing paradigms	**Research paradigms**			
	Positivism	**Constructivist**	**Participatory**	**Pragmatism**
Ontological questions (the nature of reality)	Singular reality: researchers either accept or reject the hypothesis	Multiple realities: researchers provide quotes to illustrate different perspectives	Political reality: findings are negotiated with participants	Singular and multiple realities: researchers test the hypothesis and provide multiple perspectives
Epistemological questions (the relationship between the researcher and what is being researched)	Distance and impartiality: researchers objectively collect data on instruments	Closeness: researchers visit participants at their sites to collect data	Collaboration: researchers actively involve participants as collaborators	Practicality: researchers collect data by 'what works best' to address the research question
Methodological questions (process of research)	Deductive: researchers test a prior theory	Inductive: researchers begin with participants' views and build up to patterns, theories, and generalizations	Participatory: researchers involve participants in all stages of the research and engage in cyclical review of results	Combining: researchers collect both quantitative and qualitative data and mix them

Adapted from Creswell and Clark, 2011

In this study, the constructivist approach was employed. This paradigm adopts a distinct perspective and is commonly linked to qualitative methodologies. This paradigm focuses on the interpretations or meanings participants and their subjective viewpoints give to phenomena. When individual participants share their understandings, they do so from personal histories and meanings shaped by their social interactions with others (Creswell & Creswell, 2018; Creswell & Clark, 2011). In this approach to inquiry, research begins with individual perspectives and gradually builds up to identify larger patterns and, ultimately, broad understandings (Creswell & Clark, 2011). According to Creswell and Creswell (2018), in the constructivist paradigm, people interpret their experiences in their own subjective ways, with particular objects or things in mind. Given the multitude and variety of these meanings, the present researcher decided to concentrate on the range of perspectives instead of classifying or restricting meanings to just a few of ideas. Thus, according to the constructivist paradigm, the main goal of the research is to depend heavily on the participants' perspectives regarding the topic of investigation.

4.3. Research Approach

The aim of this study was to examine the research university vision and the path towards it within the academic leadership context at BDU. The study emphasises exploring the academic perceptions of the research university vision and the reason behind BDU's aspiration to become a research university, the primary leadership activities performed, and the challenges encountered on the path towards the vision, in line with Bolman and Deal's four frames of leadership. Although different research approaches, methods, and techniques could be used to study the topic, using the chosen approach is based on the nature of the research problem and the research questions to be answered.

To achieve the intended results, the study used a qualitative research approach. This approach was chosen to explore the perceptions of leaders regarding the research university concept and why BDU aspires to become a research university. In addition, identifying the leadership orientation (the frames utilisation) of the leaders required a qualitative exploration of documents and the leaders' views. Although it can be challenging to find a clear definition of qualitative research, a generic definition by Denzin and Lincoln (2018, p. 43) states:

> Qualitative research is a situated activity that locates the observer in the world. Qualitative research consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them.

In addition, qualitative research was defined by Aspers and Corte (2019, p. 139) 'as an iterative process in which improved understanding to the scientific community is achieved by making new significant distinctions resulting from getting closer to the phenomenon studied'. Qualitative research focuses on the investigation of ideas, opinions, or experiences and the collecting and analysing of non-numerical data, and is useful for providing a thorough understanding of the study's subject. According to Joubish et al. (2011, p. 2082), 'qualitative research is used to gain insight into people's behaviours, attitudes, value systems, concerns, motivations, aspirations, culture, or lifestyles'. Moreover, Creswell (2015, p. 46) stated that qualitative research 'is conducted in a natural setting (the field), a source of data for close interaction,' 'relies on the researcher as key instrument in data collection,' 'involves using multiple methods,' 'involves complex reasoning going between inductive and deductive,' 'focuses on participants' perspectives, their meanings, their multiple subjective views,' 'is situated within the context or setting of participants/sites (social/ political/historical),' 'involves an emergent and evolving design rather than tightly prefigured design,' 'is reflective and interpretive (i.e., sensitive to researcher's biographies/social identities),' and 'presents a holistic, complex picture.'

The researcher therefore preferred qualitative research for its advantages of allowing data collection in a real or natural setting, being flexible, obtaining detailed data on participants' opinions, feelings, and practices, and using words instead of numbers.

4.4. Research Design

A research design is a plan of action that specifies what, how, where, and when to conduct a research study. The design describes how a researcher rationally integrates the study question, data sources, data collection and analytic methodologies, and ethical considerations. Various scholars have defined research design in different ways. Yin calls research designs 'logical blueprints' (Yin, 2011, p. 75) and 'craftwork' (Yin, 2014, p. 28), while Denzin and Lincoln (2011) call them 'strategies of inquiry' (p. 58). Yin (2014, pp. 69–70) states that 'the design is the logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusions.' On the other hand, Creswell (2014, p. 41) defines research designs as 'types of inquiry within qualitative, quantitative, and mixed-methods approaches that provide specific direction for procedures in a research design.'

Regarding the case study design, Priya (2021) provides a complete list of the fundamental components of this research design:

> (a) purpose of study; (b) type of research undertaken depending on the purpose—exploratory, explanatory or descriptive; (c) research questions; (d) study of single case or multiple cases depending upon the purpose, research questions and resource availability in terms of manpower, money and time; (e) epistemological underpinnings determining the direction of the case study in the field; (f) literature review; (g) sampling; (h) methods of data collection adopted; (i) analysis of

> data; and (j) presentation of analysed data in an effective and coherent way which can enhance our knowledge. (pp. 98–99)

This study used a case study design. According to Priya (2021, p. 94), '[a] case study is one of the most commonly used methodologies of social research'. As to Priya (2021), the case study research design involves conducting an in-depth and contextualized study in a real-life setting, giving the investigator the freedom to utilise the type of data collection method that best fits their goal. A case study design can use one or multiple cases. In this regard, Gillham (2000) states as follows:

> A case study investigates: single (individual, group, institution, community) and multiple cases to answer specific research questions (that may be fairly loose to begin with), and which seeks a range of different kinds of evidence, evidence which is there in the case setting, and which has to be abstracted and collated to get the best possible answers to the research questions. (p. 1)

Gillham (2000) further explains that a case study is characterized by the use of numerous source; where a researcher employs various types of data sources with their own merits and demerits rather than relying on a single source. Gillham clearly states that 'no one kind or source of evidence is likely to be sufficient (or sufficiently valid) on its own. This use of multiple sources of evidence; each with its strengths and weaknesses, is a key characteristic of case study research' (p. 2).

The case study design typically encompasses qualitative approaches. Yin (1981, p. 58) describes a case study design 'as a research strategy, the distinguishing characteristic of the case study is that it attempts to examine: (a) a contemporary phenomenon in its real-life context, especially when (b) the boundaries between phenomenon and context are not clearly evident'. A case study is recognised as qualitative although it can employ both qualitative and quantitative approaches (Patton & Appelbaum, 2003). A case study research design is a time- and activity-bound where a researcher gathers detailed information using different procedures over an extended period (Merriam &Tisdell, 2016; Creswell, 2014; Yin, 2014). Moreover, a comprehensive definition of case study design has been advanced by Creswell (2014):

> Case studies are a qualitative design in which the researcher explores in depth a programme, event, activity, process, or one or more individuals. The case(s) are bound by time and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time. (p. 241)

A case study is amongst the research designs which benefit a researcher in various ways. The case study is important for describing, understanding, and evaluating the various aspects of a research problem, such as generating definitions, evaluating existing theories, and helping develop new theories (Pinfield, 1986; Gersick, 1988; Harris & Sutton, 1986). A case study provides a detailed description and analysis of a single or more cases using data collected from different sources

(Creswell, 2013; Tracy, 2013). In case studies, since the researcher is part of the research method, the meanings and inferences are constructed parts of the research reports. According to Creswell and Creswell (2018, p. 14), 'case studies are a design of inquiry found in many fields, especially evaluation, in which the researcher develops an in-depth analysis of a case, often a programme, event, activity, process, or one or more individuals'. Furthermore, Remenyi et al. (2002, p. 14) state:

> A well-rendered story clearly explains its meaning in such a way that the listener or reader understands the message. The story needs to make sense or put it another way, it needs to resonate with the listener or reader. If there is no resonance, then the story and the research have failed.

According to Yin (2014, p. 43), case studies can be '(a) explanatory or causal case studies, (b) descriptive case studies, and (c) exploratory case studies'. A descriptive case study helps a researcher to 'describe' an existing phenomenon in a detailed manner. An explanatory case study focuses on explaining causal factors of a real-life events; the very intent of an exploratory case study is to 'explore' or identify novel research problems in a broad manner. This study's primary purpose is to investigate leadership orientation, a novel problem in the case of BDU, and to provide a in-depth account of the data gathered. This requires the integration of both descriptive and exploratory case studies. Therefore, this research employed an exploratory descriptive case study design. The following sections address the study participants, the methods of data collection and data analysis, the trustworthiness of the study, and the ethical considerations of the study.

4.4.1. Study participants

While a representative sample size is not required in qualitative research, researchers must decide on the estimated sample size before data collection and assess the sufficiency of the sample size to accomplish the research purpose (Young & Casey, 2019). determining an appropriate sample size in qualitative research remains a contentious issue, often leading to uncertainty among researchers (Young & Casey, 2019; Barkhuizen, 2014; Mason, 2010). Different authors recommend different sample sizes for case studies, ranging from one to 135 (Barkhuizen, 2014, p. 5), one to 95 (Mason, 2010, p. 8) and four to ten (Gentles et al., 2015, p. 1783). As knowing the number of interview subjects before the data collection is crucial for the researcher, it was determined to interview 16 top- and middle-level leaders.

For this study, 16 purposively chosen academic leaders were interviewed (four top-level and 12 middle-level leaders). These leaders were chosen because it is believed that they are more knowledgeable about the university's research vision and are appropriate sources of evidence. Babbie (2008, p. 520) describes purposive sampling as 'a type of nonprobability sampling in which the researcher's judgment about which units will be the most useful or representative is used to select the

units to be observed'. Similarly, Tracy (2013) explains purposeful sampling as a technique where researchers 'purposefully choose data that fit the parameters of the project's research questions, goals, and purposes' (p. 134). It is asserted that purposive sampling is the basic method to be used in a qualitative case study (Creswell, 2011; Tracy, 2013). Creswell (2011) explicitly states: 'It means that the inquirer selects individuals and sites for study because they can purposefully inform an understanding of the research problem and central phenomenon in the study' (pp. 299–300).

All of the leaders interviewed were male. Length of their professional experience ranged from four to 18 years, and they had been in a leadership position for for at least one and up to six years. The leaders' average number of years as leaders is approximately three years. Ten of the participants, that is, the majority, had worked in other positions before holding their current position. The remaining six participants had no leadership experience before their current positions. The participants occupied positions as president, vice president, scientific director, dean, or director. Table 7 depicts a summary of the participants' personal details.

Table 7. Summary of interviewees' personal details

S.No	Participant code	Gender	Years of experience at BDU	Years of experience in current position	Leadership experience prior to current position
	L1	M	13	5	Yes
	L2	M	22	5	Yes
	L3	M	9	1	No
	L4	M	15	2	Yes
	L5	M	8	4	No
	L6	M	18	1.5	Yes
	L7	M	4	1	No
	L8	M	9	3	No
	L9	M	4	2	No
	L10	M	11	2	Yes
	L11	M	13	3	Yes
	L12	M	13	2	Yes
	L13	M	18	5	No
	L14	M	12	5	Yes
	L15	M	16	6	Yes
	L16	M	18	2	Yes

4.4.2. Data collection methodology

A case study attempts to gather data from different sources (Gillham, 2000; Creswell, 2014; Yin, 2014; Creswell, 2013). The data from different sources are vital for triangulation, which simply refers to using different sources of information (Cohen et al., 2018). Dong (2018) asserts that triangulation helps to regulate the correctness of information or phenomena obtained from different sources. The data for the present study were collected using the methods of document analysis and interviews.

4.4.2.1. Document analysis

To investigate how the concept of a research university and the importance of the research university vision are articulated at Bahir Dar University, and to explore the activities performed and challenges faced by academic leaders on their journey path towards the research university vision, four types of university documents were analysed. Document analysis is a data collection method by which researchers review and evaluate different sorts of documents (both printed as well as electronic versions)(Bowen, 2009). It is widely acknowledged that document analysis is a cost-effective way to obtain reliable data. Moreover, data from documents can be coupled with information from other sources, including interviews, in order to improve credibility and minimize bias (Bowen, 2009).

Different types of documents can be used for the review and evaluation of a study (Bowen, 2009; O'Leary, 2014). For example, O'Leary (2014) lists three main types of documents: public records, personal documents, and physical evidence. To answer the research questions, four categories of documents that can be classified as public records were examined for this study: the Blue Book, senate legislation, the second five-year strategic plan, and the ten-year strategic plan.

The documents were selected based on their relevance to the issue of a research university vision and their comprehensiveness in providing relatively broad information. The documents selected for review are strategic. Strategic documents directly reflect the views and perspectives of organisational leaders, although they are developed with the involvement of other staff members at different hierarchies of the organisation. The four-frame model is used to analyse documents at the institutional level (an entire university) with the belief that, on one hand, strategic documents provide comprehensive data encompassing the entire university. These documents are created with the involvement of key stakeholders (staff, academic, and administrative leaders) and reflect university-wide objectives. On the other hand, the four-frame model is valuable for understanding the complexities of organisations like universities through various lenses and perspectives from different disciplines.

In support of this, Hambrick and Mason, 1984,p.193) argue that the outcomes of an organisation, including its strategies and effectiveness, are influenced by the values and cognitive perspectives of its key leaders. Similarly, Eden and Ackermann (1998) emphasise the crucial role of leaders' perceptions in shaping strategic documents. Moreover, Alkhafaji (2003) highlights that the missions of organisations reflect the vision of top management.

The Blue Book was found to be the first document that talks about the what, why, and how of a research university in the context of BDU. Senate legislation comprises crucial documents regarding

the constitutional framework of the university and contains certain guidelines. The strategic plans chosen for this study are believed to be comprehensive and to better demonstrate the university's activities over a certain period than annual or bi-annual reports and minutes. For instance, the second five-year strategic plan contains information about the implementations of the first five-year strategic plan and the future strategic direction of the second five-year plan. Similarly, the ten-year strategic plan describes the achievements of the first and second strategic plan periods and the focus points for the next ten-year strategy of the university.

4.4.2.2. Interviews

Interviews comprised the major data collection method used to obtain detailed data about BDU's top- and middle-level leaders' understanding of the research university vision. According to Creswell (2012), an '*interview*' is typically a face-to-face exchange of information between a researcher and a participant. The interview is viewed as a practice of discourse between a researcher and an interviewee (Corbin, 2015). According to Corbin (2015) and Mishler (1986), asking questions and replying are styles of speaking that are based on culturally accepted and frequently implicit beliefs about how to convey and comprehend perceptions, experiences, emotions, and purposes. Similarly, Bogdan and Biklen (2007) and (Morgan (1997) describe an interview a planned conversation between two or more persons. According to Robinson (2014), interviews are regarded as a crucial and commonly employed method for gathering qualitative research data.

The interview method helps researchers explore why people behave in a certain way or how they judge various events, as discussion can clarify the reasons behind those behaviours. Seidman (2006, p.10) states that 'interviewing provides access to the context of people's behaviour and thereby provides a way for researchers to understand the meaning of that behaviour'. Furthermore, Sherman and Webb (2005) argue that in-depth interviews allow researchers to verify, clarify, or alter what they assumed occurred, to get a full understanding of an event and consider the 'lived' experience of participants.

This study used semi-structured interview guides (see appendix 4) to conduct the interviews, where 'the outline increases the comprehensiveness of the data and makes data collection somewhat systematic for each respondent. Logical gaps in data can be anticipated and closed. Interviews remain fairly conversational and situational' (Cohen et al., 2007, p. 355). Fontana and Frey (2000, p. 645), also describe interviews as 'one of the most common and powerful ways in which we try to understand our fellow human beings.'

The researcher conducted face-to-face interviews with BDU leaders to obtain comprehensive evidence about various issues relevant to the research questions. The interviews were 1held with 16 purposively selected top- and middle-levels university leaders from different work units of the university who are believed to be well informed about the research university vision. The interviews were used to learn more about the leaders' perceptions of the nature of research universities, the importance of the research vision to BDU, the main activities they undertook (the areas they considered important to change to move the university closer to becoming a research university), and the challenges they faced. The endeavours undertaken to date, the accomplishments achieved, and the difficulties faced were also examined, based on the areas of emphasis selected for modification.

4.4.3. Data collection process

The data collection procedure involved four specific phases. In the first phase, the researcher reviewed the available documents and research findings relevant to the study issue. In the second phase, following the document review, the researcher conducted pilot interviews using the interview guide with two leaders (one top-level and one middle-level). Based on the lessons learned from the pilot interviews, the researcher made minor adjustments and finalized interview guide.

In the third phase, the researcher collected the actual interview data. To recruit the interviewees, the researcher obtained a permission letter from the dean of the College of Education. Using the permission letter, the researcher made face-to-face contact with prospective interviewees, explaining the goal of the research, the type of data he would solicit, and the research process, and obtained participants' consent. Initially, the researcher planned to approach prospective interviewees via email. However, internet services were interrupted because of the state of emergency declared in Amhara Region, Ethiopia, and a short message (SMS) was used rather than an email to approach prospective interviewees. Short messages introducing the researcher and the research purpose were communicated to each potential interviewee.

Candidates who responded positively to the message agreed on the time and location of the interview sessions. Candidates who failed to respond to the text messages were telephoned. After confirmation of consents, a time and place for the interviews were arranged. However, several candidates failed to respond to both the text and the telephone call and several others refused to participate. Candidates who did not respond or refused to participate were dropped, and only those who responded and gave their consent were contacted for interviews. A sample of a text message can be found in Appendix 3. At the interview, participants were given the permission letter and the consent form. All interviews were conducted only after the researcher had received consent to proceed. The consent agreement comprised: the rationale for selecting participants as informants for the research study; the

purposes and procedures of the research; participants' right to withdraw from the study at any point; the techniques that would be used for protecting their privacy; and the right to review the data. Finally, face-to-face individual interviews were held, followed by data analysis. All interviews were audio recorded. According to Corbin (2015, p. 112), 'keeping a diary or journals enables the researcher to see the research process evolve and to note changes in self that might occur as the research progresses'. Thus, in addition to audio recording, the researcher made notes of key points in the interview process. All interviews were conducted between 16 October 2023 and 8 November 2023.

The fourth stage comprised the analysis of the interview data from the 16 academic leaders. After the interviews were done and tape-recorded, they were transcribed in line with the research questions, that is, the transcriptions were arranged using a table with columns for the interview guide questions, which also incorporated detailed notes and synopsis of the main themes.

After the interview data were transcribed, they were analysed in line with the research questions, using paraphrasing, quotes, and codes in line with the theoretical framework of the study, that is, Bolman and Deal's four-frame model of leadership orientation. The results of the interview analysis, following the research questions and the theoretical framework, were summarized. Each interviewed leader's utilisation of the frames was summarized in Appendix 7. The results of the interviews which could not be categorized under any of the four frames were treated separately as external and related to the environment.

4.4.3.1. Pilot interviews and adjustments to interview guide

Following the document analysis and before the main research interviews were conducted, the interview guide was pilot-tested on two participants, one top-level leader and one middle-level leader, in August 2023. The one interviewee worked as an executive director in the field of social science, and the other interviewee worked as dean of a college specializing in mathematics. The pilot interviews made significant contributions to the theoretical framework of the study and research design of the study, as they helped the researcher to check the appropriateness of the proposed theoretical framework.

The pilot interviews were also relevant to test how clear and comprehensive the interview guides were and to make necessary adjustments. The pilot interview used three open-ended questions to elicit the interviewees' contextual conception of a research university, the importance of the research university vision for BDU, and their description of leaders' efforts and initiatives to date on the path towards achieving the research university vision.

Following the pilot interviews, the recorded sessions were transcribed. The responses provided by the interviewees were more or less in line with the intention of the researcher in terms of the first two research questions (the conception of a research university and the importance of the research university vision for BDU). However, regarding the third question, where the intention was to focus on efforts related to structural, human resources, political, and symbolic aspects of leadership practices, the interviewees were thinking about aspects of the change practices that came to mind instead of the strategic focus of their actions. The researcher therefore realized that the third question was too vague and needed to be broken down into probing questions addressing the four frames – structural, human resources, political, and symbolic – of leadership.

The two pilot interviews were conducted in different languages: the interview with the dean of the college was conducted in English, while the conversation with the executive director was conducted in Amharic, his mother tongue. Based on this experience of using different languages, the researcher realized that Amharic was better as it enabled the researcher to make the questions clear, and the interviewee was able to provide more elaborate responses than in the English interview. During the English interview, the interviewee sometimes used Amharic words and then switched back to English. This caused the researcher to speak Amharic rather than English even though the interview guide had been drawn up in both Amharic and English.

In their responses, the interviewees mentioned problems rather than actions. This prompted the researcher to include an additional interview question addressing the challenges leaders face in their efforts toward achieving the research university vision. Thus, based on the pilot interviewees' responses, the interview guide was modified as outlined in Table 8 below.

Table 8. Interview guide: questions before and after the pilot interviews

Interview guide before pilot	Interview guides after pilot
1. How do you conceptualize a research university?	1. How do you conceptualize a research university?
2. Why do you think the research university vision is important for Bahir Dar University?	2. Why do you think the research university vision is important for Bahir Dar University?
3. What are the major activities you undertake to achieve the set research university vision? • **Probing questions** a) To what extent are your activities performed rationally? b) How or by what means do you select, recruit, develop, and retain research-focused staff across academic units? c) How do you balance the interests of the institution and its staff in line with its vision? d) How or by what means do you work towards the creation of a research culture, including being role models of quality teaching and research for staff?	3. What are the major activities you undertake to achieve the set research university vision? • **Probing questions** a) To what extent are the activities of BDU and its academic units performed rationally? b) How or by what means does BDU select, recruit, develop, and retain research-focused staff across academic units? c) How does BDU balance the interests of the institution and its staff in line with its vision? d) How or by what means do BDU's academic leaders at different levels work towards the creation of a research culture, including being role models in performing quality teaching, and research for their staff?
4.	4. What major challenges do you believe are facing BDU leaders in their efforts to achieve the research university vision?

4.4.4. Methodology for data analysis

This study employed qualitative data analysis methods. The data obtained from documents and interviews were analysed using qualitative content analysis and thematic analysis, following Silverman (2014), who claims that most qualitative research is based on what he terms a 'naturalistic model'. According to Silverman (2014), the naturalistic model comprises –

> [s]tudying what people think or feel (i.e. their 'experiences'), a preference for interviews and other kinds of manufactured data, using methods of analysis which pay little attention to sequential organisation (e.g. content analysis or thematic analysis), and a willingness to triangulate data from different contexts. (pp. 19–20)

There is disagreement regarding the terminology used to differentiate between various qualitative analytical processes (Patton, 2015). While content analysis is used in qualitative as well as quantitative research methods, its primary application is in data reduction for the creation of codes and categories (Denzin & Lincoln, 2018; Merriam & Tisdell, 2016; Patton, 2015). For instance, Merriam and Tisdell (2016) claim that content analysis is the most commonly employed method to analyse documents and that the goal of content analysis is to arrange significant and relevant themes by classifying large

amounts of data from many sources and providing a context for them. In this regard, Patton (2015, p. 790) comments:

> More generally, content analysis usually refers to analysing text (interview transcripts, diaries, or documents) rather than observation-based field notes. Even more generally, content analysis refers to any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings.

Content analysis is important in the analysis and interpretation of raw field data because it identifies the main themes of an interview or document and creating categories or coding patterns. Patton (2015, p. 808) states: 'Content analysis, then, involves identifying, coding, categorizing, classifying, and labelling the primary patterns in the data.' Qualitative content analysis specifically refers to how the meaning made from qualitative data is presented. Schreier (2014, p. 170) comments in this regard: 'Qualitative content analysis is a method for systematically describing the meaning of qualitative data.' The following five steps are recommended by Marvasti (2011, p. 73) for conducting content analysis:

1. Define the research problem;
2. Select a source for the visual material to be used in the study;
3. Identify the categories or features that will be the focus of the research;
4. Sample documents from the sources previously defined; and
5. Measure or count the occurrences of the pre-established categories (p. 73).

By comparison, Puppis (2019) summarized six steps of qualitative content analysis (Figure 21.1, p. 372):

1. Research question, theory, and state of research;
2. Choosing the method of data collection and sampling;
3. Data collection;
4. Data preparation;
5. Coding; and
6. Interpretation.

Based on the above processes, the researcher defined the research questions, identified the four documents and the purposively chosen leaders as the data sources, recognised emerging themes and established categories (themes) based on the predetermined theoretical framework, and then tallied the number (frequency) of documents and leaders for each code assigned under each theme (frames). Consequently, the predetermined themes (the four frames of Bolman and Deal) were used as the

basis of the themes for the major activities and challenges, whereas emerging themes were used for the concept of a research university, the importance of the research university vision, and challenges.

Like content analysis, thematic analysis is useful in qualitative research to identify themes derived from different data sources. According to Braun and Clarke (2006, p. 79), '[t]hematic analysis is a method for identifying, analysing and reporting patterns (themes) within data'. Braun and Clarke (2006) further claim that though content analysis and thematic analysis are similar in terms of identifying patterns across qualitative data, content analysis emphasises the micro level and allows for counting instances, thus converting qualitative data into quantitative data. Thematic analysis differs from content analysis in that it presents data in words or phrases rather than numbers.

Silverman (2014, p. 630) states that 'thematic analysis attempts to locate themes in qualitative data [and is] commonly used with interview and focus group data'. Vuori (2011, p. 109) proposes that thematic analysis may help to observe, and create meaning from, apparently distinct material, analyse qualitative information, and systematically observe an individual and his or her communication in different sociocultural contexts, as well as convert data from a qualitative into a quantitative form. In this study, the researcher used thematic analysis to present the theme-based results obtained from the content analysis. After the themes were coded and identified, based on Bolman and Deal's four frames and the emerging themes, those themes were analysed (for data from both documents and interviews).

The level of analysis in this study is institutional and concerns BDU's journey towards the research university vision (BDU's documents), and leadership orientations to the concept of a research university among academic leaders. The interviews were conducted in the academic leadership context of BDU, but interpretations were thematically constructed using Bolman and Deal's four frames. The top- and middle-level leaders were purposively selected, and the same interview questions were presented to all academic leaders.

Institutional document analysis and leadership orientations can be studied using a case study, as proposed by Tight (2012), who asserted that a case study is one of the methodological approaches used for 'institutional or sub-institutional levels of analysis'. Tight's summary of 'Journal articles published in 2010 by the level of analysis and methodology' (2012, Table 3, p. 280) also indicates that both documentary analysis and interview methods can be used for an individual level of analysis. Particularly, the level of analysis for data from interviewed leaders is at micro level since the analysis addresses the views or cognitive maps of each leader. This study utilised both document analysis and interview methods for data collection. The parts that follow present greater detail regarding these methods.

4.4.4.1 Document analysis

Documents were used as sources of evidence and document analysis was the method of analysis. The document analysis was performed in line with the four guiding questions of the study, and the theoretical framework. The research questions used to guide the document analysis were: 1) How is the research university vision articulated in major documents of BDU? 2) What are the reasons/motives behind BDU's a research university vision? 3) What are the major activities performed by BDU in its journey path towards a research university vision? 4) What are the major challenges facing BDU in its journey path towards a research university vision?

The content analysis consisted of four steps. First, the documents were reviewed in line with the research questions. Second, based on the research questions, a summary table was drawn up, and themes were identified (see Tables 9 and 10). Third, following the identification of the themes, the themes were coded in line with Bolman and Deal (2021) four-frame model. The codes and the number of sources (documents) from which the codes were derived were counted. In this regard, Silverman (2014, p. 624) states that 'content analysis involves establishing categories, systematic linkages between them and then counting the number of instances when those categories are used in a particular item of text'. Fourth, analyses of activities performed by BDU and challenges faced was completed by integrating the research questions with the four frames – structural, human resource, political, and symbolic) (for further information, refer to Tables 9 and 10 in Chapter 5). The results of the document analysis that could not be classified according to the four frames of Bolman and Deal's framework were presented under an emerging theme as external influences.

4.4.4.2 Data analysis of the interviews

Similar to the document analysis, the content analysis of the interviews was carried out in line with the study's interview guide and theoretical framework. The questions that guide the interview were: (1) How do you conceptualize a research university? (2) Why do you think the research university vision is important for BDU? (3) What major activities do you perform as a leader in your journey towards the research university vision? (4) What major challenges do you face in your journey towards the research university vision?

The data from the interview were analysed following four steps. First, the tape-recorded data were transcribed against the extended research questions (interview guide) using a table for each interviewee. A summary table was used with columns for each interview guide question, detailed transcripts/notes, and a summary of the key points. Second, following the transcription, the data were coded, which involved assigning text sections to inductively evolving categories. In this step, the frequency of responses for each code was counted (illustrated in Figure 5, Figure 7, Table 11 and

Table 12). The objective of quantifying the interview findings is not just to rank the order of quantitative conclusions, but it is also a feature of the content analysis process itself. Braun and Clarke (2006), Wilkinson (2000), and Ryan and Bernard (2000) assert that content analysis emphasises the micro level and enables qualitative data to be counted by converting qualitative data into quantitative data, allowing the researcher to quantitatively analyse data that were previously qualitative. Likewise, Mayring (2014, p. 10) explains that the 'central idea of qualitative content analysis is to start from the methodological basis of quantitative content analysis but to conceptualize the process of assigning categories to text passages as a qualitative-interpretive act, following content-analytical rules.' Moreover, Puppis (2019, p. 381) asserts that 'qualitative content analysis not only allows for interpretation but also quantitative analysis, e.g. of the frequencies of categories'.

Third, after coding, the categories were further arranged according to Bolman and Deal's (2021) four frames (structural, human resource, political, and symbolic), which serves as the theoretical framework of the study. The theory-based coded data for major leadership activities and challenges are summarized in Tables 11 and 12, respectively.

Fourth, the categorized data were analysed in line with the research questions. As with the document analysis, the results of the interviews which emerged and could not be categorized under the four frames were treated separately as external environment-related factors.

4.4.5. Trustworthiness of the data

According to Lincoln and Guba (1985), in Denzin and Lincoln (2018, p.1380), four important factors ensure trustworthiness in qualitative studies: credibility, transferability, reliability, and conformity.

Credibility, according to Stahl and King (2020, p. 26), is defined as, 'how congruent are the findings with reality?' Concerns about congruence in qualitative research are analogous to those about internal validity in quantitative research. In qualitative research, unlike quantitative research, reactions to coherence credibility are rarely the same. Contrary to popular belief, Stahl and King (2020, p. 26) argue that 'credibility is a construction on the part of the reporter(s) and the subsequent reader(s).'

Several strategies can be used to establish credibility, such as verifying the data's authenticity and discussing interpretation with project participants, or creating themes and codes by combining data from several sources. Following Creswell and Guetterman (2019), the data analysis focuses on three techniques to verify accuracy and ensure the credibility of the qualitative results and interpretations: triangulation, member checking, and auditing. In qualitative research, 'triangulation' pertains to the process of confirming information from numerous sources, types of data, or techniques of data gathering, such as documents and interviews, to arrive at explanations and themes. According to Stahl and King (2020, p. 26), 'roughly stated, triangulating means using several sources of

information or procedure from the field to repeatedly establish identifiable patterns'. In triangulation, the researcher investigates each source of information for evidence to support a topic. This guarantees the accuracy of the study because the data are gathered from multiple sources.

In addition to triangulation, researchers can check their findings with study participants to ensure their accuracy. The researcher in this study attempted to validate the participants' information during the interview process by checking their responses to a specific question before moving on to the following question. Furthermore, researchers may request that the study report be thoroughly reviewed by someone outside the project. In this regard, the researcher solicited comments from five colleagues at Bahir Dar University College of Education who specialize in educational management and leadership, teacher education, adult education, and psychology. They provided comments on the data collection instruments used and the reports of the analysis. Their feedback assisted the researcher in critically revisiting the research techniques in terms of their relevance to addressing the research question, as well as the appropriateness and clarity of the study result report.

Transferability in qualitative research is equivalent to external validity, also known as generalizability, in quantitative research. By demonstrating to readers how a study's conclusions might be useful to a variety of settings, situations, eras, and demographics, transferability is established. It may appear difficult to provide proof that the findings of the research study could be transferable but Lincoln and Guba (1985, p. 316) commented as follows in this regard: 'It is, in summary, not the naturalist's task to provide an index of transferability, it is his or her responsibility to provide the database that makes transferability judgments possible on the part of potential appliers.'

There are various methods for demonstrating transferability but in this case the researcher adhered to Lincoln and Guba's (1985) suggestion to provide a thorough description of the phenomenon. A qualitative researcher can employ the technique of 'thick description', that is, to provide an in-depth and comprehensive account of their experiences collecting data. A qualitative researcher creates a direct connection between the data collection process and the cultural and social surroundings. This entails talking about the study's background, the setting for the interviews, the methods used to describe them, the means of communication used to obtain participants' consent, and articulating the findings in clear terms and supporting them with quotes that help readers grasp the context of the research more fully. This detailed description helps readers visualize the study's context, including participants' daily lives and potential unconscious biases that may influence their responses. It is helpful to contextualize participants' replies within the social and cultural context surrounding the study's frame. This allows readers to decide for themselves whether transferability is applicable.

Dependability, according to Neuman (2014, p. 12), is synonymous with reliability or consistency: 'It suggests that the same thing is repeated or recurs under identical or very similar conditions.' Similarly, Stahl and King (2020, p. 27) define dependability as 'trust in trustworthiness'. In addition, Stahl and King point out that 'in qualitative research in which researchers, both producers, and consumers, actively build their trust in the events as they unfold, there are a few concrete research practices that not only produce trust but also feel trustworthy when they are executed.' Furthermore, Creswell and Guetterman (2019) assert that dependability empowers 'one to repeat a study by using overlapping methods and in-depth methodological descriptions of the procedures' (p. 261).

Dependability is also defined as a process 'by which the methods have been undertaken and is dependent on the researcher maintaining a "decision trail"; that is, the researcher's decisions are clear and transparent. Finally, an independent researcher should be able to reach equal or comparable conclusions' (Noble & Smith, 2015, p. 34). By contrast, Stenbacka (2001, p. 552) asserts that 'the concept of reliability is even misleading in qualitative research. If a qualitative study is examined with dependability as a criterion, the result is that the study is inadequate.'

The researcher made an effort to test the interview guide before the actual data collection, obtained participants' informed consent, and scheduled the interviews at a suitable date and place to ensure that the interviewees could provide objective answers. Furthermore, the researcher double-checked the facts throughout the interview and obtained input from colleagues on the draft results.

Confirmability is the fourth criterion of establishing trustworthiness, according to Lincoln and Guba (1985). Stahl and King (2020, p. 28) define confirmability as 'getting as close to objective reality as qualitative research can get'. This implies that researchers should devise strategies to reduce bias and promote objectivity. Creswell and Guetterman (2019, p. 261) state that 'researchers can address confirmability (the qualitative counterpart to bias) by admitting biases and assumptions and acknowledging limitations in the study's methods'. The researcher attempted to reduce bias by acknowledging unexpected results and identifying limitations.

4.4.5. Ethical considerations

Researchers are expected to prioritize people over research, that is, they should protect participants at all stages of a research study from any possibility of incurring harm. Researchers should ensure that participants are safe and develop trust in researchers, enhance the integrity of the research, and minimize misconduct. In line with this, Israel and Hay (2006) forward that 'Ethical behaviour helps protect individuals, communities, and environments, and offers the potential to increase the sum of

good in the world' (p. 2). Based on the above, the researcher followed the necessary ethical procedures during all stages of the research.

To collect data, permission letters were obtained from the dean of the College of Education, Bahir Dar University, stating the purposes of the research and the types of data required. Based on the permission letter, the researcher secured the informed consent of the research participants. Obtaining the participants' informed consent and signed consent agreements was an integral part of the research procedure. The researcher also considered the participants' privacy and security in order to elicit their cooperation for the successful collection of the relevant data. In analysing the data and writing the report, care was taken not to mention participants' real names. To guarantee anonymity, the interviewed leaders are referred to by the codes L1–L16.

5. RESULTS

This chapter encompasses the study's findings in two sections: the document analysis and the interview analysis. The results regarding the articulation of a research university and the importance of the research university vision in the strategic documents, as well as the perceptions of university leaders about becoming a research university and the importance of the research university vision for BDU were analysed thematically, using themes developed by the researcher. The results about leadership activities and challenges faced were analysed using theory-driven themes in accordance with the researcher's understanding and application of the theoretical frame, Bolman and Deal's leadership categories. The empirical results and conclusions pertain to the analysed documents and the interviews with university leaders at BDU, in accordance with the research methodology of the study.

5.1. Results of the Document Analysis

The document analysis was framed by three guiding questions:

1. How is the vision of the research university articulated in the Blue Book, senate legislation, and strategic plan documents of Bahir Dar University? What are the reasons/motives behind the research university?
2. What are the major activities undertaken by Bahir Dar University in its journey towards the research university vision?
3. What are the major challenges facing Bahir Dar University in its journey towards the research university vision?

To answer the above questions, four BDU-related strategic documents were reviewed, namely the 2014 Blue Book, the second five-year strategic plan (2015–2019), the ten-year strategic plan (2020/21 to 2029/30), and the 2020 revised senate legislation. The Blue Book is a print document that serves as the blueprint for BDU's vision. It was prepared by the university and provides comprehensive information about the concept and importance of a research university vision, why BDU wishes to become a research university, and the priority strategic areas for BDU in moving towards becoming a research university. The senate legislation is another comprehensive document of the university, considered to be the constitution of the university. All rules and procedures developed by the

university are expected to be in congruence with the senate legislation. Moreover, any new guidelines or procedures initiated by the university have to be enforced by the senate legislation.

The results from the document analysis, against the research questions and theoretical framework, are summarized in Tables 9 and 10.

Table 9. Major leadership themes specified in BDU's strategic documents in line with the four frames (Bolman & Deal , 2021)

Code	Frame	Frequency	Reference documents
1. Clarification of leadership positions	Structural	2	Ten-year strategic plan and senate legislation
2. Development of university-wide automated system	Structural	2	Ten-year strategic plan and senate legislation
3. Development of different guidelines	Structural	2	The strategic plans
4. Improving/revising the organisational structure	Structural	3	The strategic plans and senate legislation
5. Incentivizing the staff	Human resources	1	Ten-year strategic plan
6. Development of staff capacity/competence	Human resource	3	The Blue Book and strategic plans
7. Creating a comfortable working environment	Human resource	2	The Blue Book and Ten-yeastrategic plans
8. Establishment of research infrastructure	Political	1	Five-year strategic plan
9. Managing staff interests	Political	2	The Blue Book and ten-year strategic plan
10. Widening sources of revenue	Political	3	The Blue Book and strategic plans
11. Securing adequate financial and input resources	Political	3	The Blue Book and strategic plans
12. Image building	Symbolic	1	Ten-year strategic plan
13. Communicating missions, vision, and values	Symbolic	2	The strategic plans
14. Development of research culture	Symbolic	4	All documents

Table 9 above presents the primary articulations in the reviewed strategic documents of BDU related to becoming a research university and categorized in terms of Bolman and Deal's four frames. The documents disclosed that there are four leadership themes included in the structural frame: 1) improving/revising the organisational structure, cited in three of the documents; 2) development of a university-wide automated system (digitally integrated), cited in two of the documents; 3) development of different guidelines, cited in two of the documents; and 4) clarification of leadership positions, cited in one of the documents.

Table 9 also indicates that there are leadership articulations that mirror the human resource frame revealed by the reviewed documents. The leadership articulations-in relation to the human resource frame are: the development of staff capacity/competence cited in three of the documents; creating a comfortable working environment, cited in three of the documents; and incentivizing staff, cited in one of the documents. The leadership articulations that belong to the political frame are: widening sources of revenue cited in three of the documents; securing adequate financial and input resources, cited in three of the documents; managing staff interests, cited in two of the documents; and the establishment of research infrastructure, cited in one of the documents. Table 9 indicates that the documents reveal the following leadership themes that fall under the symbolic frame: development of a research culture cited in all four documents; communicating missions, vision, and values, cited in two of the documents; and image building, cited in one of the documents.

Table 10. Major challenges, based on the two strategic plans

Code		Structural	Human resources	Political	Symbolic	Frequency
1.	Limited staff capacity		√		√	2
2.	Poor research practice	√	√	√	√	2
3.	Weak community services practice		√			2
4.	Weak governance and leadership	√		√	√	2
5.	Weak communication and partnerships			√		2

Table 10 lists the major challenges facing BDU, based on the two strategic plan documents. These challenges were categorized according to the four frames of Bolman and Deal. The challenges include structural frame issues such as poor research practice and weak governance and leadership, both cited in both documents, as well as human resource issues such as limited staff capacity, poor research practice, and weak community services practice, cited in both documents.

Table 10 also indicates that poor research practice, weak governance and leadership, and weak communication and partnerships were coded as political frame challenges of BDU in its journey towards becoming a research university. Table 10 lists the symbolic frame challenges of BDU as being limited staff capacity and poor research practice. It should be noted that three of the challenges (limited staff capacity, poor research practice, and weak governance and leadership) belong to different frames rather than to a single frame. The detailed results of the document analysis are deliberated in the following sub-sections.

5.1.1. Concept and importance of the research university vision

The Blue Book addresses the research university vision and explains it in terms of two concepts, first, that of an institution filled with the best researchers and teachers, and second, having the infrastructure and resources to provide quality research and education. Regarding the availability of the best researchers and teachers, BDU envisions that at least 50% of its teachers should be Ph.D. holders who can conduct research in their fields of study and advise graduate students.

With regard to having the infrastructure and resources for quality research and education, BDU focuses on four specific areas: 1) the availability of a sufficient research budget – it aspires to raise its research budget share to 40%; 2) the establishment of international-standard laboratories and libraries; 3) admission of quality students who are dedicated to studying and conducting research – it aspires to have 50% of students in graduate programmes; and 4) hosting a leadership with a clear vision and strategy to establishing a research university by creating an environment conducive to quality research and teaching.

The Blue Book describes the nature of a research university, as well as the need to contribute to the nation's development as the reason behind BDU's research university vision stating that BDU wishes to be a research university to be competitive and contribute to national development.

> As Ethiopia aspires to be a lower-middle-income country by 2025, it needs to have a research university that competes with the universities of other lower-middle-income countries. Bahir Dar University needs to be premier in achieving its competitiveness in the spheres of teaching, research, and technology transfer. (BDU, 2014, p. 1)

The document further explains that BDU aspires to a research university vision so as to help teachers and students acquire the knowledge, abilities, and dispositions needed to be productive citizens by understanding both national and global contexts; to turn intellectuals' knowledge and skills into resources so they can support national economic development; to strengthen the role of education in social development; to lessen brain drain; and to produce citizens who are self-assured (BDU, 2014, pp. 16–17), translated from Amharic).

5.1.2. BDU's primary emphases in line with Bolman and Deal's four-frame model

Bolman and Deal's four frames were subsequently applied to the data from the four reviewed documents, in order to categorize BDU's activities in its journey towards the research university vision. The results of the research question and frame-based integrated analyses are discussed in the following subsections.

5.1.2.1. The structural frame

All four documents revealed leadership activities which can be categorized under the structural frame, namely: 1) improving/revising the organisational structure; 2) developing a university-wide automated system; 3) clarifying leadership positions; and 4) developing different guidelines. The coding groups and frequency of sources for major leadership activities by BDU are presented in Table 9.

Regarding the revision of the organisational structure, three strategic documents—the five-year strategic plan, the ten-year strategic plan, and the senate legislation—highlight the importance of improving the organisational structure as part of the university's vision to become a research university. For instance, one of the outcome indicators in the ten-year strategic plan mentions 'establish a committee for revisiting BDU organisational structure flatter and seamless across the University campuses' (BDU, 2020, p. 82). Similarly, the second five-year plan (BDU, 2015) identifies improving the organisational structure as a strategic objective. Additionally, Article 6, page 13 of the legislation outlines the university's organisational structure.

Concerning the development of a university-wide automated system, two strategic documents—the ten-year strategic plan and the senate legislation—emphasis the importance of automating various university activities. The ten-year strategic plan mentions that 'BDU has also a global advancement in information and communication technology which facilitates easy access and fast share of information; e-Learning is started in 15 academic units while there are digital library, video conference facilities, and automated workflows and communications' (BDU, 2020, p.35). Additionally, the strategic plan identifies the 'development of automated postgraduate students management system particularly for PhD students' as a strategic initiative to enhance teaching and learning (p. 100). According to the legislation, Article 228, number 2, the university library is responsible for implementing the library automation system, and Article 274, number 16, emphasises the importance of automating the community service workflow within the university.

In relation to the clarification of leadership roles, both the ten-year strategic plan and the senate legislation highlight issues with role clarity. Specifically, the ten-year strategic plan mentions that 'there is also the issue of clarity about the roles and responsibilities of some of the leadership posts such as board management and executive directors, vice president advisories etc' (BDU, 2020, pp. 31-32).

Two of the strategic documents reviewed, the ten-year and five-year strategic plans, stress the importance of developing various guidelines as a key focus for BDU. In this context, the ten-year strategic plan states.

> One of the crucial components for the success of a university is the very existence of institutional set-ups such as policies, guidelines, and administrative bodies. In this regard, BDU is putting efforts to establish a defined hierarchal and structural relationship governed by rules and regulations' (BDU, 2020, p. 23).

Bolman and Gallos (2011), as cited in Dong (2018), state: 'In the structural view of academic institutions, college and university leaders play two central roles, they are analysts who carefully study the institution's production processes; and they are institutional architects and systems designers who develop the rules, roles, policies, reporting relationships, and procedures that align efforts with campus goals' (p. 51). Concerning the theme of improving/revising the organisational structure, the documents clarify that when BDU's research university vision was first initiated, it was considered relevant that there should be a favourable organogram to accommodate positions relevant to the vision and to enhance smooth coordination and workflow among the different hierarchies. As a result, the office of the vice president for research and community services was established to own and handle the research and community services activities up to the operational level. To this end, directorate offices under the vice president's office and vice deans under academic units were also organised, and these units operate under this line of reporting. Moreover, change management consultation offices were established to give professional direction to top- and middle-level leaders on negotiating the university's journey toward its vision. Bolman and Deal (2021, p. 444) reflect that good managers and leaders 'know what they stand for and what they want and communicate their vision with clarity and power.'

One of the assumptions of Bolman and Deal (2021, p.50) structural frame is that 'organisations increase efficiency and enhance performance through specialization and appropriate division of labour'. One theme identified in the documents that relate to BDU's structural frame is the establishment of a university-wide automated system. The establishment of automated systems aims to introduce efficiency and secure accountability. An automated system will minimize manual and hard-copy-based activities. This will, on the one hand, help the university perform activities fast, and, on the other hand, identify where failures or delays happen so that the person in charge will be easily identified and be accountable.

Two of the documents discuss the development of a university-wide automated system for different sections. The established systems mentioned in the reviewed documents include a system of income generation, a property disposal mechanism, students' information management systems for the registrar, finance, and property management, and an academic load management system.

Bolman and Deal (2021, p.397) state: 'Change undermines existing structural arrangements, creating ambiguity, confusion, and distrust. People no longer know what is expected of them or what they

can expect from others. Everyone may think someone else is in charge when in fact no one is.' The clarification of leadership positions is an important activity for organisation and helps leaders to recruit, follow up, appraise, and ensure accountability. To have a clear understanding of what leaders do, it is vital to clarify the position holder's knowledge or skill requirements, the explicit duties and responsibilities of the person in a position, the procedures to be followed in recruiting leaders, and the duration of the tenure of position holders. This helps the organisation to assign specific tasks, follow up on their execution, appraise performance, and reward persons or hold them accountable for mistakes.

Bolman and Deal (2021, p. x) indicate that the structural frame 'presents guidelines for aligning structures to situations, along with cases illustrating successful structural change.' Guidelines are crucial in an organisation to create clear ways of doing activities across all levels of the hierarchy. An organisation's activities at various levels should be similar and there should be job-specific guidelines to be followed so that there will be more objectivity and less subjectivity. Organisational activities should, as far as possible, be judged in line with set guidelines rather than based on individual judgments. This requires the development of guidelines, rules, and procedures that facilitate university tasks across several domains, including academic and administrative. Some of the guidelines indicated include the administration of resources, the administration and monitoring of revenue, budget administration, staff publication and research incentive guidelines, and research ethics guidelines.

5.1.2.2. The human resource frame

To be effective and efficient, organisations need to attract and retain individuals with the relevant knowledge, skills, and dispositions to perform the job. At the same time, employees are curious whether organisation will work for them (Bolmann & Deal, 2017). People often tend to resist change for different reasons. One reason may be a lack of knowledge about new methods introduced by management that creates an obsession which results in taking the organisation in the wrong direction. Another reason may be the undermining nature of newly introduced practices on existing knowledge and skills, affecting the work which people are capable of accomplishing with confidence. To cope with resistance, Bolman and Deal,(2021, p. 396) proposes that 'training, psychological support, and participation increase the likelihood that people will understand and feel comfortable with the new methods.'

The reviewed documents revealed that certain leadership activities and challenges can be classified under the human resource frame indicating its applicability to BDU. The coding themes and

frequency of source documents are indicated in Table 9. The leadership activities under the human resource perspective are: 1) the development of staff capacity/competence; 2) creating a comfortable working environment; and 3) incentivizing staff.

Three strategic documents—the blue book and two strategic plans—highlight that staff capacity development is a priority for BDU. The blue book notes that many university teachers lack the necessary capacity due to a recruitment process that does not align with the dynamic needs of teachers and the university's vision. Consequently, many teachers lack the competencies required for a research university, necessitating their empowerment. Current teacher training strategies include long-term and short-term training, as well as increased participation in research forums. Long-term training encompasses second and third-degree programs both domestically and internationally (BDU, 2020).

Additionally, the ten-year strategic plan emphasises the need for BDU to enhance its research capabilities by building staff capacity and fostering international academic and research collaborations. This approach aims to elevate program and research standards, thereby attracting competent staff, students, and research grants (BDU, 2020, p.8). BDU has invested in developing its academic staff's capacity, with hundreds pursuing master's and PhD programs (p.17). Similarly, improving the capacity of teachers, leaders, and other staff members through various training initiatives has been a key focus in the five-year strategic plan (BDU, 2015).

Creating a comfortable working environment is emphasised in two strategic documents of BDU—the blue book and the five-year strategic plan. The five-year strategic plan lists a 'comfortable working environment' (BDU, 2014, p.20) as an indicator of strategic objectives. Likewise, the blue book further details BDU's focus on fostering a conducive working environment by building and organising research labs, providing information and technology infrastructure, developing modern library facilities, constructing various buildings, and creating conditions for large-scale income generation.(BDU, 2014).

Incentivizing staff has been recognised as one of BDU's initiatives in its journey towards becoming a research university. The ten-year strategic plan highlights the development of incentive packages as a key strategic initiative. According to the strategic plan (BDU, 2020, p.79), the percentage of 'best performing teachers, researchers, community service providers, and administrative staff who receive recognition, incentives, or rewards for their outstanding performance' is listed among the strategic activities.

Bolman and Deal (2017, p. 139) state that 'strong companies know the kinds of people they want and hire those who fit the mould'. Similarly, the documents revealed that BDU had taken various initiatives to develop the capacity/competence of its staff. This activity focuses on increasing the quantity as well as the quality of human resources of the university. In addition to recruiting new staff from outside, capacity development and upgrading were undertaken through long-term training (masters and doctorates), and existing staff were updated through short-term training. In this regard, Bolman and Deal (2021, p. 121) comment that 'people's skills, attitudes, energy, and commitment are vital resources that can make or break an organisation'.

Bolman and Gallos (2011), as cited in Dong (2018), mentioned the power of resources as an incentive for attracting people: 'resources include money, training, staff support, organisational clearances, and whatever else individuals or groups need to work successfully' (p. 96). In the same vein, the documents revealed that BDU engages in incentivizing staff, an activity that resorts under the human resources frame. The documents indicated that, beyond building capacity, it is vital to motivate and retain the existing staff. In this regard, providing incentives for research outputs (publications) and housing services for academic staff are among the activities that have been initiated by BDU.

Another human resource frame-related activity identified from the documents is the creation of a comfortable working environment. One mechanism for enhancing staff interest and commitment is to make the working environment comfortable. The major activities related to creating a comfortable work environment include providing offices that are conducive to research and advising students, making the campus friendly and safe, offering technology services (internet), securing resources for self-development, providing recreational areas such as sports fields and cafeteria, and improving the teacher–student ratio. No single strategy is effective; instead, a comprehensive strategy is best to improve human resource management. Bolman and Deal (2021, p. 161) state:

> Progressive organisations implement a variety of 'high-involvement' strategies for improving human resource management. Some approaches strengthen the bond between individuals and organisations by paying well, offering job security, promoting from within, training the workforce, and sharing the fruits of organisational success. Others empower workers and give work more significance through participation, job enrichment, teaming, egalitarianism, and diversity.

Bolman and Deal (2021) further explain:

> Human resource theorists typically advocate openness, caring, mutuality, listening, coaching, participation, and empowerment. They view the leader as a facilitator and catalyst who uses emotional intelligence and social skills to motivate and empower subordinates. The leader's

> power comes from talent, caring, sensitivity, and service rather than position or force. (p. 374)

5.1.2.3. The political frame

According to Bolman and Deal's (2021) reframing theory, there are 'four basic skills of the effective organisational politician: setting agendas, mapping the political terrain, networking, building coalitions, and negotiating'. The documents reviewed reveal that some of BDU's activities resort under the political frame, related to four major issues: 1) broadening sources of revenue; 2) securing adequate financial and input resources; 3) managing staff interests; and 4) establishing research infrastructure. These activities mentioned in the documents indicate the presence of considerations related to the political frame.

Bolman and Deal (2021, p. 185) explain that 'politics is the realistic process of making decisions and allocating resources in a context of scarcity and divergent interests'. Based on the document analysis, one of the leadership activities categorized under the political frame is broadening sources of revenue, which involves leaders creating strategic communication and partnerships with local institutions (both government organisations and nongovernmental organisations) to secure resources (human as well as financial), the creation of research projects in partnership with national as well as international organisations, and working in partnership with foreign institutions, increasing the share of internally generated income, the share of the development of internal revenue, developing market-based programmes, and diversifying programmes that can attract international students.

The documents indicated that BDU has established over 160 partnerships across the the globe, including partnerships with organisations and higher education institutions in 'Africa, America, Asia, Europe, and from Australia'. Besides, BDU has become 'a member of nine international associations, networks, alliances, and consortia' (BDU, 2020, p.23). In 2019, BDU had 19 joint programmes and hosted 324 international students. Furthermore, there were 930 research projects in 2012 compared to 520 in 2007. The documents also specify that the university participates in income-generating programmes (e.g., continuing education, dairy products), to increase its revenue by the means of 'the production of goods, grand research projects, Poly-Peda Enterprise, and BiT trading' (BDU, 2020, p.24).These strategies are vital for the leaders to ensure relaxed plan implementation and reducing ineffectiveness and staff competition over scarce resources.

Another dimension of leadership activity within the political frame found in the documents is securing adequate financial and input resources for research activities. In this respect, the review results from three of the documents spoke of the practice of improving BDU's share of the research

budget from the overall annual university budget. Bahir Dar University has attempted to secure adequate financial and other resources for research activities. It was indicated that BDU's share of the annual research budget increased from one million ETB in 2011 to 40 million ETB in 2015 (BDU, 2015). Moreover, the university allocated 4% of its total budget to research (BDU, 2020).

This approach is very helpful for staff working in the research wing and those who engage in research activities. This emphasis on research enhances staff participation in vision-related tasks and reduces staff resistance. Managing staff interests under the political frame included course load reduction for research engagement, participation of staff in resource management practices, handling of staff disciplinary issues, and practicing staff academic freedom. These actions may help BDU to have open discussions and negotiations with staff about challenges related to overload, resource management, misconduct, and exercising academic freedom.

Bolman and Deal (2021, p.206) state: 'From a political perspective, goals, structure, and policies emerge from an on-going process of bargaining and negotiation among major interest groups'. In the same vein, accommodating and managing staff interests were mentioned as one of BDU's activities in two of the documents. Bahir Dar University has tried to address staff interests through course load reduction for research engagement, resource management, managing disciplinary issues, and practising staff academic freedom.

Four leadership actions were mentioned in at least one of the documents (the senate legislation): clarification of leadership positions, incentivizing staff, the establishment of research infrastructure, and image building. In line with the clarification of leadership positions in the different hierarchies of the university, the legislation clarifies positions at different levels (top-, middle-, and operational-level positions), position requirements, the duties and responsibilities of the various positions, requirements and procedures to be followed in recruiting leaders, and the duration of specific terms for position holders. According to (Bolman and Deal (2021, p.190), the political frame 'proposes that interdependence, divergent interests, scarcity, and power relations inevitably spawn political activity'.

One important dimension of leadership activity indicated under the political frame is the establishment of research infrastructure. In this regard, BDU engaged in the establishment of research centres that are well equipped with the necessary input, building standard classrooms, well-equipped laboratories, and libraries so that staff have adequate facilities in which to conduct quality research and teaching, which is the major focus of the university's vision. If resources are available, staff resistance will be minimized while staff motivation will be enhanced.

5.1.2.4. The symbolic frame

Bolman and Deal (2021, p. 248) specify that 'the symbolic frame focuses on how myth and symbols help humans make sense of the chaotic, ambiguous world in which they live. Meaning, belief, and faith are its central concerns. Meaning is not given to us; we create it.' The reviewed documents refer to the symbolic frame utilised by BDU. Activities related to the symbolic frame are considered unique initiatives for the development of a research-oriented society. All four documents revealed actions related to the symbolic frame, which at the same time answered the three research questions. Leadership activities that were coded under the symbolic frame, as listed in Table 9, are: 1) the development of a research culture; 2) communicating the missions, vision, and values; 3) the development of staff research capacity; and 4) image building.

The symbolic frame contributes to organisational development by creating a family environment for staff to work and grow together. Bolman and Deal, (2021, p. 339) argue that 'the symbolic frame offers powerful insight into fundamental issues of meaning and belief, as well as possibilities for bonding people into a cohesive group with a shared mission'. In the case of developing a research culture, BDU emphasised the formation of research teams in which junior staff work with and learn from senior staff. This may help leaders to inculcate research practices as an identity area of the university. Hosting weekly research seminars, symposia, and research workshops by staff and PhD students, organising public lectures and international or continental conferences, encouraging staff to publish in reputable journals, and providing incentives for those who publish may make staff value and practise academic dialogue as a university culture.

The document analysis also affirmed that other themes related to the symbolic frame are communicating vision, missions, and values, as well as the clarification of leadership positions. In every organisation, the first step to achieve a vision is to share the organisation's vision, mission, and fundamental values. All the university-based documents include the vision statement, mission, core values, and motto of BDU. In aspiring to become 'one of the leading research-intensive universities in Africa and the first choice in Ethiopia by 2030', the missions BDU's missions are to:

> Promote advanced research and innovation on the basis of the country's requirements; produce graduates with relevant professions and necessary competences (knowledge, skills and attitude) to respond to the national labour market requirements to eventually ascertain the global competitiveness of the country; improve lives through evidence-based and transformative community engagement; and enhance demand-driven and problem solving technology transfer. (BDU, 2020, p. 42)

In the pursuit of its vision and missions, the guiding values of BDU include 'quality; pursuit of wisdom; excellence; innovation; social responsibility; diversity; and internationalization' (BDU, 2020,

p. 42). Moreover, BDU has chosen as its motto 'Wisdom at the Source of the Blue Nile'. This motto was chosen because of BDU's location at the base of the Blue Nile and its competitive advantages. This was stated:

> As a public HEI of a country with ancient civilization and wisdom, BDU puts 'pursuit of wisdom' as one of its core values. This value emanates from BDU's motto 'Wisdom at the Source of the Blue Nile'. BDU is privileged to be located in Bahir Dar, a UNESCO registered learning city and the third healthiest city in Africa. In line with this, BDU has $ambitious blue project on Lake Tana and $green partnership project to save Lake Tana and thereby Blue Nile, which has regional and global implications (BDU, 2020, p. 5).

The motto is part of the university's logo, displayed in Figure 4.

Figure 4. Logo of Bahir Dar University with motto

This motto helps the university create a common understanding of where it is, where it wants to go, how it will get there, what major achievements are expected of its staff, and what should be the university's guiding principles for implementing its mission and realising its vision. The documents further indicated that leaders should be focused on communicating the set vision, mission, and core values to the university community and stakeholders via different printed and online media.

Furthermore, the documents indicated that staff received capacity development training in various areas such as research proposal writing, manuscript preparation, and research software application. In addition, the presence of established research centres may encourage staff to prioritize research in addition to teaching.

At least one document mentioned the importance of image building. This activity involves leaders promoting the university's positive aspects through various media, serving as role models for other staff to advertise the university's strengths.

5.1.3. Major challenges faced by BDU

On the journey towards its vision of a research university, BDU faces several challenges. Two of the four reviewed strategic plans highlighted weaknesses and threats rather than challenges in their SWOT analysis. These weaknesses and threats are presented here as internal and external challenges. The internal challenges identified in the documents include limited staff capacity, poor research practice, weak community service practices, inadequate governance and leadership, and ineffective communication and partnerships. The external challenges include lack of adequate government attention to the establishment of research universities, limited autonomy, instability resulting from inflation, high graduate unemployment rate, lack of interest and capacity of local businesses for partnerships, competition for limited resources, and shortage of foreign currency.

The internal challenges were analysed in line with Bolman and Deal's (2017) four frames (refer to Table 10 for a summary) while the challenges which were not accommodated in the Bolman and Deal's model were acknowledged as external.

Internal Challenges

5.1.3.1. Structural challenges

The documents identified structural challenges at BDU, including poor research practices and weak governance and leadership. In terms of research practices, the documents highlighted various issues such as fragmented research practices, lack of a transparent and efficient system, and problems with research administration. Moreover, the documents emphasised the need for improved attention to the administration and management system, particularly in monitoring and rectifying research projects sponsored by government as well as external funders.

The weak governance and leadership practices as a structural frame-related challenge for leaders are attributed to an unstable organisational structure and continuous change, and indecisive leadership. Indecisive leadership as one structural frame-related challenge refers to 'lack of clearly stated rules, policies and procedures on reporting and accountability of leaders and staffs' (BDU., 2020, p.32). The documents also indicated a lack of empowerment and leadership competence among females, resulting in a low number of female staff in leadership positions. Concerning staff involvement in leadership matters, the documents also showed that staff are not committed to participating, particularly in the 'formulation and approval of rules, guidelines, and regulations' (BDU., 2020, p32). Moreover, the documents revealed a poor complaint-handling system by leadership, hindering harmony among academic and administrative staff and their ability to work together. Rent-seeking and corruption were also considered as major barriers that BDU encountered in implementing its first strategic plan.

5.1.3.2. Human resource challenges

The human resource challenges at BDU revealed by the documents include limited staff capacity and weak community service practices. The documents mention that the number of Ph.D. holders at BDU is below the expected level and their research capacity is also not at the desired level. Moreover, the documents state that although BDU aspires to become a research university, it has a low number of professors and academic staff with Ph.Ds. with a majority holding master's degrees followed by bachelor's degrees. In addition to the shortage of Ph.D. holders, the current staff lack the necessary competence to write research proposals in partnership with industries and other partners.

The other human resource frame-related challenge mentioned in the documents was weak community service practice. These weak practices were attributed to a lack of clear understanding regarding what constitutes community engagement. Moreover, it was indicated that though the university intends to create a connection among teaching, research, and community service activities, there remains a disconnection between these areas. In addition, poor community service practices were associated with low participation from staff and students, absence of mutual relationships between BDU and its stakeholders, limited financial and logistical support, and absence of a well-organised platform of documentation and dissemination of community service projects.

5.1.3.3. Political Challenges

Regarding the political challenges at BDU, the documents mentioned poor research practice, weak governance and leadership, and weak communication and partnerships. In terms of poor research practices, there were limited funding opportunities and management issues as well as an absence of well-furnished research laboratories. The documents revealed that though the university has been trying its level best, there were inadequate research facilities. These include laboratory equipment and supplies, greenhouses, workshops, maintenance and repair services, skilled laboratory staff, reliable internet access, and journal subscriptions.

Weak governance and leadership pose a significant challenge in terms of the political frame, including the absence of gender representativeness, staff reluctance to engage in leadership issues, and issues of rent-seeking and corruption. Concerning gender representativeness, the documents indicate a lack of commitment from leaders to empower women and involve them in leadership roles. Regarding staff reluctance to engage in leadership issues, the documents also highlight a lack of commitment from staff to participate in the development and approval of rules, guidelines, and regulations. Moreover, the documents reveal a poor complaint-handling system within leadership, hindering the creation of

harmony among academic and administrative staff and impeding their ability to work together effectively. Furthermore, rent-seeking and corruption were identified as significant obstacles of BDU in implementing its first strategic plan.

Two of the documents presented other political challenges, such as restricted information flow both within and beyond the university system, as well as inadequate networking and partnerships. Despite BDU having set up both internal and external communication systems and alternative channels, these resources are not yet being fully utilised to consistently and accurately convey the university's status. Moreover, networking and collaboration opportunities with both regional and global universities are limited.

5.1.3.4. Symbolic challenges

The documents highlighted several challenges at BDU related to the symbolic frame, including limited staff capacity, poor research practices, and weak governance and leadership. The documents revealed that the university staff face limitations in terms of the research culture, as they struggle to write successful research grant proposals, conduct problem-solving research, and publish their findings. Moreover, there is a lack of consistent participation in research culture development practices such as seminars, conferences, and symposia. Weak governance and leadership have led to a 'lack of inspiring and shared vision, missions, and values among the university community' (BDU., 2020, p.31) compared to past efforts.

External Challenges

In addition to the internal challenges, the two strategic plan documents also mentioned threats/external challenges. These external challenges have direct implications in impeding the university's practices. The external challenges revealed in the documents include the following:

- *Lack of adequate attention to the establishment of research universities:* the documents revealed that the BDU's research university vision hasn't received attention from the MoSHE's (2020) study results, although it was initiated earlier. This became a bottleneck for BDU in securing autonomy and a better budget from the government. Bahir Dar University has been considered like other public universities in terms of securing an annual budget from the government, irrespective of its vision.
- *Limited autonomy:* most of BDU's rules and regulations are derived from ministerial offices designed for all public sectors. These top-down and rigid government policies, rules, and regulations pose challenges for BDU in terms of determining its structure, financial

administration system, staff salaries and incentive packages, staff recruitment and promotion criteria, and the like.

- *Instability resulting from inflation and the socio-political conditions of the country:* this has severely affected the budget share of the university from government, as well as the staff's standard of living and the procurement efficiency of the university.
- *High rate of graduate unemployment:* this has affected the motivation of students as well as the staff's commitment to being engaged in quality teaching and research.
- *Lack of interest and capacity of local businesses for partnerships:* because of the instability created, many local business sectors lack the motivation to create partnerships with BDU.
- *Competition for limited resources:* all public universities rely heavily on government funding. Funds are allocated to all universities based on similar criteria that disadvantage BDU because of its higher resource demand as a result of its research university vision.
- *Shortage of foreign currency:* one major difficulty that the university faces is a lack of foreign currency. This has affected the university's staff exchange as well as international procurement processes.

5.2. Results of the Interviews

The interviews were guided by four questions:

1. How do you conceptualize a research university?
2. Why do you think the research university vision is important for BDU?
3. What are the major activities you engaged in to rationally select, recruit, develop, and retain research-focused staff, balancing the interests of the institution and staff, and working towards the creation of a research culture, including being a role model?
4. What major challenges do you face in the journey toward the vision of BDU becoming a research university?

The interview results in terms of the primary leadership activities engaged in and the challenges faced were conceptually structured in line with the theoretical framework and are summarized in Tables 11 and 12. The results of the interviews that were not categorized under the four frames were analaysed under a section external/environment-related factor.

5.2.1. Leaders' conceptions of the research university vision and its importance

The first question posed concerned leaders' conception of a research university. Though their responses differed in terms of the scope in explaining what a research university is about, they interviewees also addressed common basic concepts. Their conceptions were thematically

constructed based on theory-driven data analysis using Bolman and Deal's four-frame model. The following sections discuss the results in more detail.

5.2.1.1. Structural frame

According to Bolman and Deal (2021), the structural frame clarifies the missions, roles, and tasks to be accomplished and the strategies to be utilised. The data revealed that the characteristics, mission, and strategic priorities of a research university mirror the structural leadership frame. A research university is a higher education institution focused on research: a research university prioritizes research over other activities such as teaching. In other words, a research university gives priority to thematic research.

Being a research-focused institution, a research university focuses on mega-level problem-solving research that can contribute to local, regional, and national policy development. Moreover, to achieve its research-specific mission, a research university focuses on the expansion of postgraduate (master's and doctoral) programmes and research centre development, has a standardized researchers' performance appraisal system, and creates a connection among the three missions (teaching, research, and community service) of the university. The interviewees provided various examples of definitions of a research university.

One leader described a research university as 'a university that focuses on differentiated research thematic areas, pulls out talented human resources, maintains standardized laboratories, expands postgraduate programmes, and creates a nexus among teaching, research, and community service' (L1, L6). A research university is also characterised by three features: talent concentration in terms of staff (both academic and administrative) and students, good governance (with institutional autonomy characterized by academic freedom), and sufficient budget resources:

> Universities differ in their mission or areas of priority. Some give a high emphasis on teaching and others emphasise research. For me, a research university is a research-led university that emphasises community problem-solving research, and research-led teaching and focuses on postgraduate rather than undergraduate students' education and training. (L3, L5, L11, L14, L15)

A research university focuses primarily on the search for holistic excellence instead of research only. One leader reflected that 'a research-active university which aspires to excellence in all its programmes focuses on thematic research and research staff and expands postgraduate programmes' (L2, L4, L7, L9).

5.2.1.2. Human resource frame

According to Bolman and Deal (2021, p.121), the human resource frame emphasises 'people's skills, attitudes, energy, and commitment as vital resources that can make or break an organisation'. The research university was conceptualized as an institution that has talented research staff (L1, L2, L5, L7, L10). To perform its mission properly and achieve its vision, a research university comprises staff members who are capable and committed to conducting research. In a research university, the staff members devote more of their time to research than to teaching activities. This statement indicates the characteristics of a research university: 'A university that fulfils necessary research facilities and research staff, most of its staff are engaged in research activities though there might be teaching and other activities, and has standardized criteria to measure the research performances of its staff' (L10).

5.2.1.3. Political frame

Bolman and Deal (2021, p. 185) state that 'politics is the realistic process of making decisions and allocating resources in a context of scarcity and divergent interests'. The perceptions reflecting the political features of a research university included resource mobilization and distribution. In this regard, a research university is perceived, on the one hand, as an institution that has a huge budget through partnerships and establishes standardized laboratories and other research facilities and infrastructure (L12, L13, L16). On the other hand, a research university responds to local and national development needs through community problem-solving research, policy inputs, and recommendations. One interviewee provided the following description of a research university:

> Universities define their missions based on their social, natural, historical, and cultural contexts. The priority given by any university is dependent on its existing experience, and human resources. A research university is a university that prioritizes research over teaching and other activities. The research university focuses on coordinating its resources toward solving national problems, producing policy inputs, and forwarding recommendations to higher officials. (L11)

5.2.1.4. Symbolic frame

Bolman and Deal (2017, p. 324) argue that 'the symbolic frame offers powerful insight into fundamental issues of meaning and belief, as well as possibilities for bonding people into a cohesive group with a shared mission'. From the symbolic perspective, a research university is known for its research culture, consisting of the staff's research orientation, integrating research and teaching, and excelling in research. A research university is an institution which values and practises research as a culture among its staff. In a research university, the teaching–learning activity is guided by the research results of staff rather than referring to secondary sources (other books, articles, and the like).

Moreover, a research university expands its research centres to attract research staff and makes its major responsibility (an estimated 75% of time) conducting research.

Generally, it is possible to infer that a research university is conceptualized as an HEI that has a differentiated mission of mega and thematic research, with the necessary human, financial, and infrastructure resources, practises good governance, is engaged in resource mobilization and serving the community, and has a culture of research development and practice as well as research-led teaching.

In reply to the question, 'Why do you think the research university vision is important for BDU?', interviewees provided numerous responses. The importance of the research university vision was related to three major areas, namely, the need to improve the existing low research performance, the need to contribute to national development, and the need to use the university's competitive advantage.

Within the context of academic leadership, one of the major reasons behind the research university vision is BDU's BPR[1] study results. The study results revealed that BDU's research performance was very low. This indicated that little attention has been given to the research mission of the university. In response to this challenge, the leadership should recognise and give special attention to research activities. Consequently, the research university vision became a vital tool for BDU to think differently about itself.

The research university vision enables BDU to view and revisit the staff's role in relation to the three missions (research, teaching, and community services) rather than only a teaching role. This enhances staff members' research participation. In this regard, a response from one leader has stated:

> Previously, academics believed that they were employed for teaching but not for research and community services. Bahir Dar University uses the MoE's guideline that explicitly indicates the staff load to be 60%, 25%, and 15% for teaching, research, and community service activities, respectively, as a tool to convince staff. This helps our teachers to accept their roles in terms of the three missions rather than only the teaching role. I remember, previously we were begging others to write research grants because our staff were not willing to do that. But now our staff are writing and winning research grants. Currently, some researchers earn on average 50,000 to 60,000 Ethiopian birr, tax-exempted, monthly top-up from projects. Some are also getting from $1,000 to $2,000 per month. (L1)

[1] Bahir Dar University established a team to conduct a year-long study, including a survey. In 2007-08, the team produced findings that rationalized the adoption of BPR as an appropriate change management tool to transform the university. The study reported that BDU faced complex and deep-rooted problems. One of the problems identified was poor research performance that pushed the university to envision transformation to a better status. The survey helped the university to understand its problems and start a restructuring process. Hence, BPR, a management tool used to reform the university's core processes, was used for result-based management.

Moreover, beyond improving its research performance, which was poor as revealed by the BPR study, BDU sought to determine its destiny. The vision serves as a compass to identify where it is, where it wants to go, and why it wants to go there. Moreover, having a focus benefits the university by prioritizing its strategic issues and coordinating its resources toward the achievement of its goals. The vision also serves as a guide for strategies to move the university to where it wants to go. One interviewee commented that 'the vision helps BDU to determine its destination: the vision helps BDU to identify its status and indicate where to go and set strategies that can take it to where it needs to be' (L7).

Another key reason for the establishment of the research university vision is the desire to contribute to national development. Ethiopia aspires to rank among the lower-middle-income countries. To this end, the contribution of universities is vital. However, being one of the oldest universities in Ethiopia, BDU has not met the anticipated level of contribution. Hence, BDU believes that it is the right time to think about its place in national development and revise its strategies:

> It is witnessed from international experiences that a knowledge-based economy is the key to national development. However, in our context though the country aspires to join the lower-middle-income countries category, the contribution of the universities remains low. Hence BDU believes that it will contribute to the nation's development if, and only if, it is engaged in a research mission and finds setting a research university vision relevant. (L15)

As part of the national contribution, the research university vision is acknowledged as an important tool to encourage the university to strengthen its staff's research culture. Because of the research university vision, BDU has shifted its focus to the initiation and enhancement of a staff research culture. This was done through the revision of staff roles in terms of research, the development of research centres, the enhancement of research facilities, the provision of research grants for staff, incentivizing staff publications, and the creation of different research culture enhancement platforms. In addition, the vision is important for BDU to motivate other Ethiopian universities to revise their organisational structure and create the position of research vice president, who is primarily responsible for coordinating research and community service activities.

Furthermore, the research university vision has also served as a springboard for MoE to conduct the higher education differentiation study:

> The vision empowers BDU to motivate other Ethiopian universities to revise their structure and include research VP positions. Beyond universities, the MoE has taken BDU's research university vision initiatives as a springboard and conducted a differentiation study, which resulted in three categories of universities in Ethiopia, namely research universities, universities of applied sciences, and comprehensive universities. (L1)

The third reason why the research university vision is important for BDU is to be competitive. Regardless of its low research performance, BDU has a better location: it is based in Bahir Dar City, the capital of Amhara Region, bthe source of the Blue Nile River, the longest river in Africa and the centre of geopolitics in East African countries. It is also situated on Lake Tana, which is the third largest lake in Africa and home for many cultural and historic heritages. Bahir Dar University is among the senior universities in the country, established with the merging of two institutions, Bahir Dar Polytechnic Institute and Bahir Dar Teachers' College. It has a relatively better staff composition than other universities in Ethiopia, and it wants to use these competitive advantages to achieve the set research university vision.

Focused on its competitive advantages, BDU wants to use its potential advantages of location, history, and available human resources to determine its priority areas for programmes. L5 noted that 'using its competitive advantage, in the 2022/2023 academic year BDU became the first choice of most first-year undergraduate students'. It was also asserted that 'BDU is nationally selected for training of textile and fashion design as well as maritime training programmes which are not offered in any other universities' (L9).

The research question was addressed in another way in terms of the importance being a research university will lend to BDU. It will help BDU to give priority to the mission of research and scientific inquiry through the revision of its organogram and the development of research centres. This research priority will give the university an advantage in increasing its national and international visibility, which will result in better partnerships with different organisations and attract international staff and students. One interviewee stated: 'The university emphasises publications in reputable journals and publishers engaged in partnership-based research projects so that its international visibility is enhanced every year' (L6).

The research university vision is also important to encourage the university to work on its human resource development. As a research university requires talented and committed staff, BDU emphasises new staff recruitment and development and incentivizes existing staff. In this regard, the vision pushes the university towards the accommodation of better staff who could contribute to its vision through research engagement. To contribute to national development, a research university has to develop its research competence through the expansion of research infrastructure and contribute to the community. A research university is resource-intensive and needs an adequate research budget and research infrastructure, in addition to promising strategy and human resources. This feature of the vision has forced BDU to work on the expansion of its research infrastructure. To do so, the university gives due attention to partnerships and resource mobilization, the

development of research centres and standardized laboratories, and the application of research outputs for local and national community problem-solving.

The perceptions of leaders regarding the research university vision and the reasons behind BDU aspiring to become a research university are comparable to the findings revealed through document analysis.

5.2.2. Primary leadership activities performed

A summary table was created to depict the themes (primary leadership activities), the number of leaders who mentioned the theme (frequency of citation), and the list of leaders who mentioned the theme using their codes. Finally, based on their frequency, the primary activities were listed in ascending order. The primary leadership activities mentioned have a maximum frequency value of 16 (mentioned by all of the leaders) and a minimum value of one (mentioned by only one leader). The frequency of the major leadership activities mentioned by the leaders is depicted in Figure 5 below.

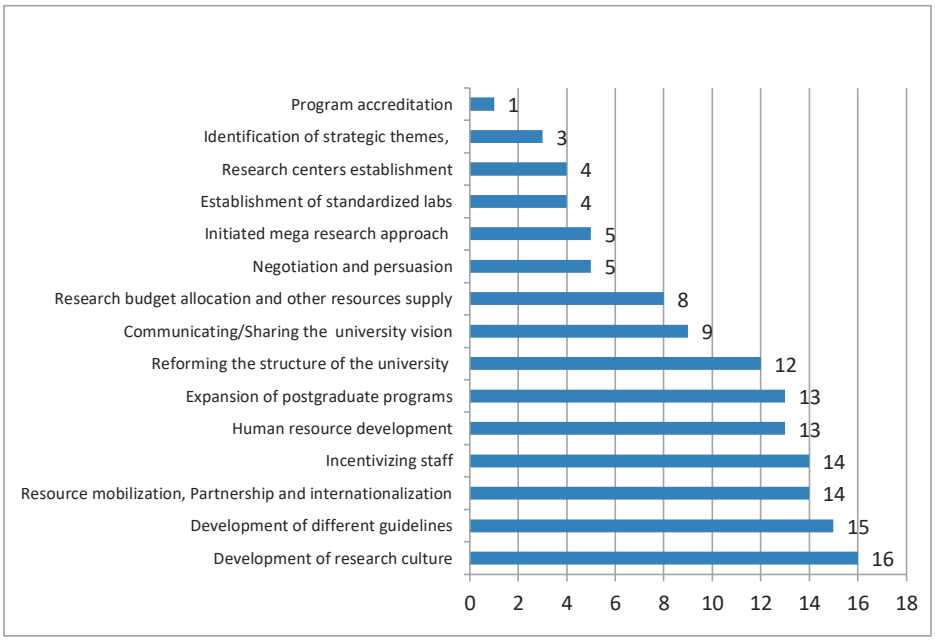

Figure 5. Frequency value of primary leadership activities

In addition to the frequency of the primary leadership activities depicted in Figure 5 above, the frame-based summary is presented in Table 11 below.

Table 11. Primary leadership activities identified on the theme of leadership

Activities	Frame	Frequency	Sources
1. Identification of strategic themes	Structural	3	L1, L2, L3
2. Establishment of standardized labs	Structural	4	L1., L10, L13, L14
3. Establishment of research centres	Structural	4	L1, L4, L13, L15
4. Initiated mega research approach	Structural	5	L1, L4, L5, L11, L12, L16
5. Reforming the structure of the university	Structural	12	L1, L2, L15, L3, L4, L5, L6, L10, L11, L13, L4, L16
6. Expansion of postgraduate programmes	Structural	13	L1, L2, L15, L3, L4, L5, L6, L9, L10, L12, L13, L14, L16
7. Development of different guidelines	Structural	15	L1, L2, L3, L4, L5, L6, L7, L8, L9, L10, L12, L13, L14, L15, L16
8. Human resource development (mobilization and capacity building)	Human resource	13	L1, L2, L3, L4, L5, L6, L7, L8, L9, L10, L14, L15, L16
9. Incentivizing staff	Human resource	14	L1, L4, L5, L6, L7, L8, L9, L10, L11, L12, L13, L14, L15, L16
10. Programme accreditation	Political	1	L14
11. Negotiation and persuasion	Political	5	L1, L3, L8, L9, L10
12. Research budget allocation and supply of other resources	Political	8	L1, L3, L4, L7, L8, L9, L13, L16
13. Resource mobilization, partnerships and internationalization	Political	14	L1, L2, L3, L4, L5, L6, L7, L8, L9, L10, L12, L14, L15, L16
15. Communicating/sharing the university vision	Symbolic	9	L1, L2, L4, L7, L8, L9, L11, L14, L15
16. Development of research culture	Symbolic	16	All interviewed leaders

The analysis of the primary leadership themes revealed by the interview results was conducted in line with the elaborated theoretical leadership construct of Bolman and Deal's four frames.

5.2.2.1. The structural frame

Bolman and Deal (2017) suggest that the structural frame enables leaders to gain a clear understanding of organisational practices, ensuring both objectivity and effectiveness. The structural view, according to Bolman and Deal (2017, p. 17) 'depicts a rational world and emphasises organisational architecture, including planning, strategy, goals, structure, technology, specialized roles, coordination, formal relationships, metrics, and rubrics'. The viewpoints of academic leaders mirroring the structural frame are elucidated below.

- **Development of different guidelines**

The leaders considered the development of different guidelines to facilitate coordination among the different units of the university as their second primary activity, after the development of a research culture (see Figure 4). The guidelines include the senate legislation, publication and research incentive guidelines, research and community services guidelines, residence house allocation guidelines, postdoctoral programme guidelines, and intellectual property rights guidelines.

Senate legislation is regarded as the master guideline of the university and comprises directions for every activity area of the university. The legislation is the key reference document to implement decisions regarding organisational structure, positions in the structure, requirements for position holders, staff promotion issues, staff salary and allowance matters, and the like. Bahir Dar University has continuously revised its senate legislation to make it as comprehensive as possible. For instance, a leader claims that 'the legislation accommodates relevant staff benefit-related articles such as promotion criteria (replacing administration service and standing committee criteria with publication points)' (L5).

Regardless of the importance of the legislation in governing other guidelines of the university, there is a common opinion that the frequent revisions should not be communicated to the university community:

> The senate legislation was repetitively revised but it lacks stability and fails also proper communication. For instance, the legislation says a Ph.D. student, to graduate, must present a paper at a national/international conference but it was not properly communicated to students. As a result, it created difficulty for my Ph.D. advisee to graduate without a research paper presentation at a conference. (L8)

BDU has also developed guidelines related to publication and research incentives, which are formulated by the Vice President's Office for Research and Community Services. These were distributed to staff and leaders for comment. After considering the comments, the guidelines were approved by the senate legislation and became a working document. These guidelines specify that staff publications should be considered for incentives, as well as the share of a researcher when winning a research project grant. These guidelines help to properly handle the staff publications incentive process and have been used at least once in paying the staff publication incentive.

The research and community services guidelines and industry–university linkage guidelines are perceived by the academic leaders as important guidelines. These guidelines specify the concept and procedure of mega-research and community services project proposals. They also clarify issues

related to industry–university linkages. These guidelines help the university to solidify its research and community engagement focus among staff. Every academic unit is expected to develop research and community service project proposals in line with its thematic areas, evaluate the proposals, allot the budget, and monitor the implementation of the approved projects based on these guidelines.

One important guideline is the university's residence house allocation guideline, developed by the directorate for university buildings and houses under the office of the vice president for administrative affairs. This guideline specifies the major criteria to compete for resident houses, and the weight assigned to each criterion. According to the leaders, this guideline helps the university to allocate the houses in an objective and fair manner.

With regard to the developed guidelines, the interviewees were asked: To what extent are these guidelines implemented? Most of the leaders replied that most of the guidelines were implemented. However, the postdoc programme, the female researchers' award guidelines, and the intellectual property rights guideline have to date not been implemented.

> The senate legislation itself is not fully implemented. For instance, though the university has an interest in recruiting research staff (75% of their load is research), so far, I see no research staff employed by the university. The research centres have only directors but the rest of the staff is sourced for research purposes from respective academic units (e.g. Biotechnology from Health and Agriculture, Institute of Pedagogical and Educational Research from Education, Blue Nile Water Institute from Bahir Dar Institute of Technology), while the staff members have full teaching and research loads[1] in their academic units. (L10)

Similarly, the leaders were asked whether the structure created and the guidelines developed are favourable for them to move towards the research university vision. Most are still positive about the structure and guidelines, regardless of the fear about their proper utilisation of the structure and the guidelines. However, the leaders assume the position and the guidelines are somewhat limiting but still workable: 'We cannot say they are all obstacles, but they are not as such liberal and give adequate autonomy. I can say still they are good' (L14). Likewise, it was stated that 'it is not only the guidelines but it is also the leaders' (our) failure to implement and utilise them to the extent they allow us to exercise' (L16).

On the contrary, the structures and guidelines are almost identical to the ministerial rules that govern all public sectors. Therefore, they are not as appropriate to handle university-related activities, and the leaders do not believe that they facilitate the journey towards the research university vision.

[1] Every academic staff member is expected to handle 12 credit hours weekly (nine teaching and three research and community services).

> The university developed different guidelines but I do not think they are relevant to facilitate the university's journey towards its vision. Most (almost all) of them are based on the MoE, and MoFED directions are not different for BDU in particular to its vision. (L7)

Similarly, the following explanation was also given:

> No, I do not think these guidelines create favourable conditions for BDU's journey toward its vision, since they are rigid. Though we have the legislative power to organise our own, the ministerial offices (MoE, CSC, MoFED) decide on it, and we are not allowed to do so. For instance, for more than 5,400 administrative staff employees, we are allowed to recruit personnel with a master's degree qualification for only one administrative position. The rest of the administrative staff positions require staff with bachelor's degrees and below qualifications. So, how can we move towards our vision without qualified administrative staff? (L15)

- **Expansion of postgraduate programmes**

As a research university is a research-led, BDU has made major strides in expanding its postgraduate programmes (master's and Ph.D.). The expansion of postgraduate programmes is considered a potential source of research outputs because postgraduate students are more likely to conduct research and produce publications than accumulate basic knowledge. Most academic units have increased the number of their postgraduate programmes. Accordingly, the number of Ph.D. programmes has increased from two to more than one hundred over the past 13 years.

One of the strategic tools to achieve the research university vision is expanding postgraduate programmes. Currently, BDU offers about 198 masters, 105 Ph.D. and 16 specialty and sub-specialty programmes. Over the past 10 years, the number of postgraduate programmes has significantly increased, leading to a relative decline in undergraduate programme enrolment, from about 52,000 students to about 32,000 students. Postgraduate programmes are essential, not only for the research conducted by postgraduate students but also for their involvement in research projects with undergraduate students (L15).

The leaders acknowledged that the number of postgraduate programmes had increased in their respective academic units: 'For instance, in our academic unit we opened 14 master's and six Ph.D. programmes within ten years since 2010' (L9). Likewise, a leader used the following example: 'There was an increment of postgraduate programmes in the past 13 years. For instance, in our academic unit, there was only one master's programme but currently we have eight master's and nine Ph.D. programmes' (L10).

The middle-level leaders received support from the top leadership in facilitating the establishment of postgraduate programmes and in mobilizing external staff. One leader reflected on an academic unit as follows:

> More emphasis has been given to the expansion of postgraduate programmes and the diversification of programmes. The university aggressively works on the expansion of postgraduate programmes, even using external staff from partner institutions like ADSP (Ambassadors of Distinguished Scholars Programme). Though the senate legislation makes the presence of at least one associate professor mandatory for an academic unit to open a Ph.D. programme, the university compromised and let our academic unit open Ph.D. programmes by using staff from external partners. (L4)

Another interviewee commented 'In this regard, the university top leadership is very supportive to facilitate the process as well as to bring external staff to teach and advise our students' (L9).

- **Reforming the structure of the university**

One primary leadership activity performed in moving towards the research university vision is revising the organisational structure of the university. Following the formulation of the research university vision, the organisational structure has been revised. One of the major organisational structure reforms mentioned is the establishment of the research and community services vice president's office, irrespective of the MoE guideline. Following the establishment of this senior management position, the middle-level positions of directorate and vice deans (under academic units) were created. Bahir Dar University is a pioneer in Ethiopia in regard to the creation of this position:

> Bahir Dar University is the first university in Ethiopia that started to endorse a structure that includes research and community services at the vice president position. Before that, only two VP positions, namely academic affairs and administrative affairs VP, were common in Ethiopian universities. Following the new vice president position, research, postgraduate, and community services vice dean positions are included under the academic unit deans, which previously had only the academic vice dean position. (L1)

The establishment of the research and community services vice dean position helps the university to organise, coordinate, and support the research, community services, and research project and publication activities of the university. The establishment of the information and strategic communication office at the vice president level is another initiative the leaders have taken:

> BDU has also established an information and strategic communication position at the vice president position, which previously was at a directorate level. This position was established because of the belief we have that to be a research university, BDU has to be internationally communicative, visible, and impacting, and this needs a new platform. Under this office, there is a foreign relations and partnership directorate that works on facilitating resource-hunting processes. (L1)

The establishment of total quality management directorate and the school of postgraduate studies can be considered among the primary activities leaders have undertaken. The total quality management directorate reports directly to the president and is responsible for ensuring quality and capacity building. It also comprises a testing centre, transformation office, and deliverology office. The establishment of the School of Postgraduate Studies, which was previously led by a section under the academic programmes vice president's office, is also contributing to the coordination of all postgraduate programmes.

- **Launch of mega research projects**

One of the activities leaders have engaged in is the launch of mega research projects. This initiative helps the university to make its research theme-based, multidisciplinary, and focused on community problems, and to engage a greater number of researchers. Initially, research practices were fragmented and individual-based, receiving a low budget. This approach was not contributing to the university's vision with respect to staff participation and publication outputs, addressing its thematic areas. The launch of the mega research project was announced as follows:

> Recently the university has introduced a mega research project approach which is thematic and multidisciplinary: which derives people from different fields of studies, female staff members, postgraduate students, and stakeholders. Moreover, it has a better amount of budget compared to the previous small-group or individual-based research. Besides, publications in reputable journals and publishers are expected from the mega research projects. (*L4*)

As part of the leadership initiatives, BDU has launched a mega research project. This project will help the university to focus its efforts and allocate a sufficient budget for theme-based and multidisciplinary research activities. The goal is to improve BDU's publication outputs, ultimately contributing to the research university vision.

- **Establishment of standardized laboratories**

The establishment of standardized laboratories at BDU is a significant strategic initiative. By definition, standardized labs at BDU are fully equipped facilities capable of conducting laboratory activities across various domains. These labs cover a wide range, including ether, biological, ICT, and workshops. Their capabilities range from basic to advanced levels. In this regard, the leaders commented that BDU had invested much effort and funds to improve the existing facilities and build new standardized labs (computers, workshops, biological, geospatial, etc.). Currently, BDU has more than 213 laboratories at its various campuses, providing services for both students and staff and facilitating research and teaching activities. The university has started accrediting the laboratories:

'Currently, BDU has about six internationally accredited laboratories (four at BIT and two at EiTEX campuses)' (L1).

The university's top leaders were very supportive of the efforts by academic units and research centres to establish laboratories. They stated that 'the university leadership is very supportive of this initiative. I have never been refused any support I requested from the top leaders' (L12).

In support of the above two leaders' statements, further explanation was provided:

> As a research university requires better laboratories, BDU has been working on constructing different labs. For instance, in our academic unit, we established different laboratories, and two of them are internationally accredited by ISO-17025 through the Ethiopian Accreditation Service, delegated by ILAC (International Laboratory Accreditation Cooperation). Moreover, human resources are provided for the laboratories so that the staff can comfortably conduct lab-based research. I believe that a high capital budget was allocated for the past 10 to 12 years for investment in infrastructure (L10).

- **Establishment of research centres**

The establishment and organisation of research centres with human resources and facilities were recognised as one of the leaders' initiatives in their effort to achieve the research university vision. Research centres were considered a priority area to enhance the research mission performance of the university. Consequently, BDU has established approximately 15 research centres from scratch since the inception of the research university vision. Among the leadership there was a belief that the development of research centres and the expansion of postgraduate programmes are the two major activities while the rest are tools to execute these activities. Moreover, the research centres are expected to host permanent research staff who devote 75% of their time to research. The research centres were launched based on BDU's competitive areas and national development needs. Bahir Dar University assumed an incremental approach to moving towards excellence in which research groups are first created, then grow into research centres and, finally, become centres of excellence in their respective thematic areas. As a starting point, BDU established the first five research centres, which later increased to about 15:

> One of the major leadership activities performed was establishing and organisation of theme-based research centres in line with its competitive advantage areas. For instance, the first research centres were: IPER linked to BDU's long experience in teacher education, EITEX based on BDU's rich experience in technology and being the only university with textile programmes not only in Ethiopia but also in East Africa, Blue Nile Water Institute in connection to its location to Lake Tana and Blue Nile, Energy research centre because of its potential experience in technology and contribution for national development in renewable power sources needs, and Biotechnology for its potential contribution to local and national community in agricultural and health-related research outputs. (L15)

Regarding research centres, the leaders were asked: How effective are the research centres in playing their expected roles and hosting permanent research staff? They revealed that the research centres are playing significant roles although their performance level is below expectations.

> By the way, I cannot say they made a significant contribution to the university's visibility. They did not come to the centre of excellence level. Their performance differs from centre to centre. For instance, much of the research, and many of the publications were produced by the Mecha Health Research Centre, Blue Nile Water Institute, and Washera Radar and Geo-space research centres compared to others. Especially, securing research staff for the research centres is the area where we are practically challenged. We could not secure permanent research staff for research centres because of a lack of full autonomy to recruit research staff with better salaries than from academic staff. (L15)

Regarding securing permanent research staff, some leaders shared their experiences as follows:

> My research institute does not have any research staff except the director (me). It is a one-man office which makes the institution idle. The failure to recruit full-time research staff for this institution, in my opinion, is a lack of trust from the top management in the productivity of the would-be research staff. (L8)

> The research centres are responsible for engaging in thematic research through research grants using internal and external staff. To some extent, they are doing important tasks. For instance, they have mobilized a significant amount of budget for research and conferences, though not up to the expected level. (L1)

Generally, it can be inferred that, while the research centres contributed to the university's research culture by mobilizing external research funds and producing research publications, they did not strive for excellence and were unable to secure permanent research staff. Moreover, some of the research centres are not meeting expectations beyond receiving their annual budget from the university.

- **Identification of strategic themes**

Bahir Dar University has been continuously developing its five-year and ten-year strategic plans, refining its strategic themes, and communicating the plans to its community. Three strategic plans have been developed since the establishment of the research university vision. The first and second strategic plans were five-year plans, while the third was a ten-year plan. In the second five-year strategic plan, six strategic themes and eleven strategic objectives were identified. Similarly, the ten-year strategic plan formulated seven strategic themes, almost identical to those indicated in the previous five-year strategic plan, and 31 strategic objectives (refer to Appendix 6 for detailed lists).

In addition to the documents mentioning this, it was perceived by the leaders that the university has identified themes for areas of excellence (such as textile and education). Three strategic plans (two five-year plans and one ten-year plan) had been developed. These plans aimed to indicate the

strategic themes, strategic objectives, and implementing strategies. In addition, the university had attempted to communicate the themes through face-to-face discussions and publications such as newsletters, bulletins, and printed calendars.

Under these strategic themes, the various activities mentioned as primary activities of BDU (such as expansion of postgraduate programmes, mobilizing resources, establishment of labs, and resource centres, communication and partnerships, etc.) were both included in the reviewed documents and described by the interviewed leaders. The activity of identifying strategic themes helps the university focused on organising and coordinating its resources towards prioritized activities, enhancing its effectiveness and efficiency.

Two of the structural leadership themes revealed by the academic leaders were similar to those explored in the document analysis: reforming the structure of the university and the development of different guidelines. However, five themes identified by academic leaders them (identification of strategic themes, establishment of standardized labs, establishment of research centres, initiation of a mega research approach, and expansion of postgraduate programmes) were not mentioned in the documents. Similarly, two structural leadership activities identified in the documents (clarification of leadership positions and development of a university-wide automated system) were not mentioned by the interviewed leaders.

5.2.2.2. The human resource frame

The human resource frame emphasises the development of strategies that help an organisation to build and implement human resources, hire the right people, retain the hired employees, invest in the development of employees, empower them, and promote diversity. The human resources frame concentrates on how organisations serve and are served by their employees. Bolman and Deal (2017, p. 16) state that the human resource perspective 'sees an organisation as an extended family, made up of individuals with needs, feelings, prejudices, skills, and limitations'. Leadership activities described by the interviewees and classified under the human resource frame are discussed in the following sections.

- **Incentivizing staff**

Incentivizing staff, both academic and administrative, was mentioned as the fourth major leadership activity on their journey towards the research university vision. There was a perception that leaders were hesitant to say that the incentive packages (modalities) were adequate enough to retain and motivate staff. The incentive practices were not considered strong enough. Despite their hesitation

about the strength or adequacy of the incentive packages, they believed that some initiatives had been taken by the university leadership. These initiatives included providing academic staff with money for their publications, top-up payments for research grants they had won, and at leadership positions, as well as resident houses. In addition, there were provisions for transportation services, free health and education services, a conducive work environment, capacity-building opportunities, and participation in decision-making processes for both academic and administrative staff.

Providing staff with money for their publications is a very good practice to motivate staff to produce better research and publications. This initiative is considered one indicator of the leadership's risk-taking behaviour. For instance, L8 stated: 'The top leaders provided the incentive for their staff for their publications by taking risks. The practice is rare and implemented only in four universities in Ethiopia, including BDU.' This mechanism has strong motivating power:

> Previously staff were reluctant not only to publish but even to report their publications to their academic units. However, after we started incentivizing publications, they were quick to report their publications soon and encouraged to publish. In this regard, there has been an increment in publications since. (L1)

The publication incentive payment has the advantage of financial empowerment. Many staff members have received a significant amount, much greater than any other allowance mechanism of the university, including their salary: 'Providing staff with money for their publications is a very encouraging practice. For instance, I myself have received about 900,000 Ethiopian birr for publications at different times' (L10). In addition to the publication incentives, there are also top-up allowances for position holder staff (leaders at academic unit level and above) and top-up payments for researchers who win research grants with a certain percentage of shares of the grant.

Another incentive package was providing academic staff with resident houses. This practice is highly appreciated because without the provision houses, it is difficult for most staff to lead a secure life on their salaries alone, as salaries and other allowance packages are very poor, and most staff require subsidies. The resident houses provided by the university are very helpful to retain staff, although these are not accessible to all staff.

Another incentive mechanism in place is providing staff with free transportation services from their homes to the university, free health services, free education for staff and their spouses and children, free day-care for female staff's children, and school transportation for staff children at a minimal cost. Moreover, the university is working towards creating a conducive work environment by providing offices, internet, water and power services, smart classrooms, equipped labs, and greening the campus.

Providing capacity-building opportunities for staff is also recognised as a staff incentive. In this regard, the university has been providing upgrading and updating training opportunities. Finally, good governance is promoted as an incentive mechanism by involving staff members in decision-making processes. Efforts are being made to ensure decisions are participatory, with staff involvement in the department council, academic commission, and senate councils. This approach avoids top-down decision-making, promotes transparency, reduces bureaucracy, and improves leadership practices through staff input.

- **Human resource development: mobilization and capacity-building**

One distinguishing characteristic of a research university is the concentration of talent, making the development of human resources a vital aspect of leadership activity. Among the leadership, the mobilization of academic staff from outside has been a priority in improving the quantity and quality of human resources. The university employed various mechanisms to bring in human resources from outside. One such mechanism was the talent hunting policy, where university leaders actively sought out research-competent staff from other universities or research institutions and encouraged them to join BDU. To attract talented staff from outside, top leaders arranged for resident housing without competition. For instance, L1 mentioned that they even provided accommodation in guest houses until the staff obtained their own housing from the university. This was confirmed by a statement that said: 'The university set a mind-hunting policy that helped academic units to bring different researchers from outside. In doing so, the university provides resident houses for those talented staff brought by academic units' (L15). A similar claim stated that 'we tried to attract external staff to join BDU by giving priority for them to get resident houses and paying expatriate staff in dollars rather than in Ethiopian birr' (L4).

A question was posed to the leaders as to whether the university had a special salary/benefit package different from the regular staff recruitment policy to attract talented staff from outside. The response was that the university does not have a special payment package. However, what it does is to promote their university's situation in terms of its research vision, enhancing research and publication culture, including research publication incentive, and its location advantage: BDU is situated in Bahir Dar City, the capital of Amhara Region, the largest city after Addis Ababa, and offers peaceful and comfortable living.

Another mechanism of human resource mobilization is the adjunct professor award and partnership. This strategy helps BDU attract researchers who collaborate with the university's academic units in teaching, research, and conference organisation while they work at their home institutions. Interviewees stated that 'BDU uses a different international staff for teaching research and training.

To mention, we mobilize staff from ADSP, Fulbright scholars, and AFRi [Alliance for Research Innovation and Education]' (L2). Another interviewee gave a similar explanation:

> Some years back our academic unit did not have any professors to open postgraduate programmes. However, thanks to the support of adjunct professors and staff from Fulbright scholars we realized it. Now we have adequate professors, who are the results of those adjunct professors' efforts. (L4)

An academic unit context was presented as follows:

> The adjunct professorship award helped us very much to get potential postgraduate staff. In the case of our academic unit, we have about 40 adjunct professors who support us in teaching and advising our Ph.D. students and doing collaborative research. We do not pay them a professional fee, but we only cover their accommodation. (L9)

Another focus area under human resource development is capacity-building for existing staff. Increasing the number of staff members holding a Ph.D. is indicated as one of tactics in BDU's strategic plans. BDU has been engaged in staff capacity-building in both upgrading (extending education from first to second degree and from second to third degree) and updating through short-term training. Moreover, due emphasis was given to improving staff's academic rankings (promoting from lecturer to assistant professor, assistant to associate professor, and associate to full professorship). This helped the university to increase its postgraduate staff profile (assistant, associate, and full professors). In the 2023, BDU had about 25 full professors, 113 associate professors, and 415 assistant professors, out of 1,871 academic staff. The leaders also indicated the staff profile improvement in their respective academic units:

> The university focuses on human resources enhancement through different mechanisms such as master's and Ph.D. education opportunities. In our academic unit, there are about 35 staff members who are currently attending their Ph.D. abroad. There is also short-term training on research proposals and publication, research ethics, statistical tools, research software, and laboratory equipment utilisation skills. (L10)

The university is consistently working on staff capacity development. Any staff member who aspires to extend his or her education anywhere (inland or abroad), will be appreciated.

The academic leaders' two major human resource leadership activities (staff capacity development and incentivizing staff) were described similarly to the way they were depicted in the reviewed documents.

5.2.2.3. The political frame

The political frame is an important perspective of leadership when seeking to understand organisations in terms of the conflicting interests between an organisation and employees. Creating a

balance between the values of an organisation and its employees, obtaining adequate resources, and encouraging the process of interpersonal negotiation play vital roles. According to Bolman and Deal (2017, p. xiii), the political frame 'views organisations as arenas. Individuals and groups compete to achieve their parochial interests in a world of conflicting viewpoints, scarce resources, and struggles for power.' Similarly, Dong (2018) also indicates that universities are considered highly political institutions. The themes drawn from the interviews and analysed in terms of the theoretical constructs of the political frame are discussed in the following sections.

- **Resource mobilization**

One activity that resorts under the political frame is resource mobilization. As a research university is a resource-intensive, BDU has been engaged in different types of resource mobilization. The resource mobilization strategies practised include partnerships and internationalization, research project development, and internal income generation. Concerning partnerships and internationalization, the leaders disclosed that BDU had established about 141 partnerships (90 national and 141 international). The partnerships focus on the areas of capacity-building, short-term training, joint research and publication, and teaching staff and student exchange. These partnerships allow BDU to access staff, budgets, and international students, who contribute to its visibility:

> For instance, our academic unit has strong partnerships with the Amhara Region and federal-level institutions in which most staff members have projects. These projects enabled our staff to engage in practical teaching and generate additional income and encouraged them to stay in BDU because these projects are rare for staff of other universities. In addition, we have a partnership with an international organisation in Spain that supported our academic unit with different resources relevant to teaching. (L7)

> The university tried to create partnerships with international and national stakeholders and engaged in staff and student exchanges so that it enhanced its internationalization and visibility. It has students from different African countries such as Eritrea, South Sudan, Sudan, Somaliland, and Somalia. Similarly, it has staff from India, China, and America. (L2)

Additional experiences were mentioned: 'The university has partnerships with different organisations that support the staff in training. For example, for training, BDU uses the staff of different international organisations such as ADSP, Fulbright scholars, and AFRi for teaching research and training' (L12).

Another resource mobilization strategy used is mind hunting and adjunct professorship awards. Bahir Dar University has a policy of hunting talented staff from elsewhere through transfer, recruitment, or as adjunct professors. Especially the adjunct professorship award benefits BDU to access professional services. In this regard, the data confirmed that the adjunct professors support the

academic units in teaching and advising their Ph.D. students and doing collaborative research with no provision of professional fees.

Yet another resource mobilization approach BDU uses is international research grants. The leaders encourage their staff to compete for international research calls through its project office. The project office is accountable to the research and community services vice president's office and responsible for managing research and community services projects, including sharing of grant calls for staff, forming research teams, and arranging accommodation for research teams that develop project proposals for competition. Most interviewees claimed that BDU has a clear direction for its staff to participate in research grant writing and obtain resources (research and conference budgets). For instance, L8 said that 'the university puts a clear direction that research activities must not be dependent on government budget. Every academic unit and research centre shall bring funds for research and conference activities.' Bahir Dar University's external research projects are increasing all the time, and currently there are about 68 active projects. The leaders were asked about the effectiveness of the university's direction in mobilizing external resources for research and conferences. The response was that it is not up to the expected level. However, four of the leaders witnessed that their sections (academic units and research institutions) could mobilize budgets for organising conferences as well as conducting research.

In addition to partnerships, adjunct professorship awards, and research project grants, leaders try to mobilize resources through internal revenue-generating activities, in addition to the government budget and external funds. The internal revenue-generating mechanisms include expansion of distance and continuing education programmes, and entrepreneurial activities via its Wisdom Enterprise.

- **Research budget allocation**

In response to BDU's poor research performance, one area of intervention is increasing budgets for research projects: After setting its research vision and establishing its research and community services wing, BDU is focusing on allocating budget for research and community services projects. The university has been consistently allocating regular budgets for research and community services projects. In addition to the regular budget, the university is encouraging the development of research projects with the support of its project office. These efforts helped the university to increase its staff research engagement and publication outputs. Interviewees referred to the trend in budgets allocated for research and community services from the Plan and Program Budget Directorate. The data for the regular budget shows a trend from 2015–16 to 2023–24 (it should be noted that the 2023–24

budget has not been released yet as the university failed to start its job as per its academic calendar because of the conflict in the Amhara Region). The trend is displayed in Figure 6.

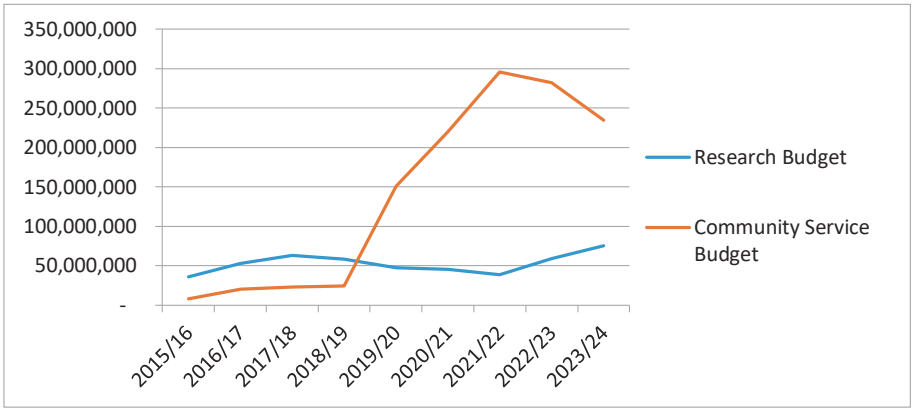

Figure 6. Trend of research and community service budget, Source: BDU, Plan and Program Budget Directorate (2023)

As can be seen from the graph, the research budget shows an increase from 35,959,907 birr in 2015–16 to 62,768,954 birr in 2017–18, while it dropped to 45,192,463 birr in 2021–21. However, the figures started to improve, to 59,167,136 birr in 2022–23 and 75,000,000 birr in 2023–24.

At the same time, the community services budget increased from 7,991,900 birr in 2015–16 to 295,668,839 birr in 2021–22. Nevertheless, it declined to 282,145,850 birr in 2022–23 and 234,450,000 birr in 2023–24. The graph also shows that the amount allocated to the community services budget was greater than that allocated to the research budget. The highest amount of for research was 234,450,000 birr (about 4% of the total university budget), which was allocated in 2023–24.

Concerning the research budgets, the leaders were asked: How adequate is the research budget allocated to your section? The research budgets are allocated annually allotted, and they are far short of the needs of the academic units and research centres. Particularly, the research centres confirmed that they do not depend on the regular budget; rather, what helps them is the external funds they mobilize from research grants. L10 explained: 'In our academic unit context, the amount of research budget we get from development partners is more than 100% of the research budget that comes from the regular government budget.' Other interviewees reflected that their research centres had not even received a budget from the university for the past six years (2018–23).

One interviewee reflected on the inadequacy of the research budget as follows:

> The budget from the university's regular budget is very low and most senior staff are not interested in taking part in research with the regular budget; mostly we mobilize research funds from research projects and partnerships, and we are safe in this regard. (L13)

- **Negotiation and persuasion**

It was agreed that negotiation and persuasion of staff were major leadership activities at BDU. The leaders engage in negotiating with both the academic and administrative staff in times of misunderstanding or resistance to act in pursuit of the research university vision. At times, they also try to convince their staff to engage in priority areas of the university such as research and publication:

> At the time of group research initiation, some staff were openly resisting and claimed that they wanted to be engaged in individual-based research projects. For instance, I remember one case from a professor. He refused to engage other staff members in his research project because his research was philosophical and needed no partnership with anybody. What I did was, I called him to my office with my colleague and discussed the nature of his research. Finally, we came to a common understanding that his research is about students and teachers, which requires the contribution of his colleagues. Eventually, he accepted our idea and engaged in a group research project. (L1)

> Usually, staff interests are prioritized over the university's interests, even at the university level. Some staff members aspire to external business activities rather than university activities to get additional income. In this case, we tried to persuade them to engage in group research activities (grants). This helped them to publish and get promoted. Mobilizing additional research staff from development partners also helped us to engage the staff engaged in the organisation's activities. The research project evaluation is very rigorous, and the selection of proposals is done objectively as much as possible. (L10)

> To resolve complaints that arise from both leaders and staff, there were open discussions to clarify issues and look for solutions. For instance, the staff complains about lack of incentives and leaders blame the staff for their poor commitment to research. In this case, the top leaders clarify why they failed to pay the incentive in time, and the staff members then wait for it patiently. Another example was a consultation meeting held between our academic unit staff and the top management (organised by my initiation), about this institution's organisational structure and missions. As a result, we came at least to have a common visualization of what a research institution's organogram should look like. (L8)

The leaders were asked concerning the activity of negotiation and persuasion. No significant efforts were made to encourage the staff to balance their interests and the university's interests. There is much more emphasis on the staff's interests than the organisation's. The interviewees further claimed that most leaders share the financial burden of the staff and sacrifice the university's interests to the staff's interests by excusing the staff for not performing their tasks on time and to the right extent.

- **Programme accreditation**

External programme accreditation was the last but not the least activity considered among the initiatives taken by academic leaders:

> We have four internationally accredited engineering programmes under the Bahir Dar Institute of Technology (BIT). The accreditation will give a chance for graduates to be employed internationally, elsewhere, beyond Ethiopia, like the maritime postgraduate diploma programme trainees. And we are proud of that. (L14)

Bahir Dar University has initiated standardization and the accreditation of its programmes in order to be internationally competitive and visible.

The political leadership activities derived from academic leaders' perceptions were the same as those revealed by the document analysis. These activities focus on resource mobilization and distribution, negotiation, and the management of staff interests.

5.2.2.4. The symbolic frame

The symbolic frame is a powerful perspective to help leaders understand the context of the organisation and create context-based values and beliefs that bring staff together. It helps the members of an organisation to create a common meaning that distinguishes them from any other organisation. According to Bolman and Deal (2017, p. 18), organisations by the symbolic perspective, are perceived as 'cultures, propelled by rituals, ceremonies, stories, heroes, history, and myths rather than by rules, policies, and managerial authority.' The two leadership activities included in the symbolic theoretical constructs were the development of a research culture and communicating/sharing the vision.

- **Development of research culture**

As can be observed from Figure 4, one activity mentioned by all leaders was research culture development. As the initiation of the research university vision was derived from the university's poor research performance revealed by the BPR study, great emphasis was placed on developing a research culture among staff. The university has been trying its level best to create platforms that contribute to the development of a research culture. The efforts initiated to enhance the university's research culture include organising conferences, conducting different seminars (Friday seminars, Ph.D. students' seminar, and public lectures), providing publication incentives, providing budgets for research projects, staff research capacity-building, organising of ceremonies, increasing the number of university journals, follow-up and support for postgraduate students' research works,

communication of postgraduate students' research outputs on different online media, and awards for young researchers and project winners.

Organising both national and international conferences is one podium for developing a research culture. There has been an emphasis on the organisation of conferences by academic units and research centres. Currently many national and international conferences are organised by most academic units and some research centres. In this regard, L1, for instance, stated that 'it was declared by the university that every academic unit must conduct at least one either national or international conference. As a result, in the 2022/2023 academic year, about 25 national and international conferences were hosted by Bahir Dar University.'

The conferences organised at BDU were previously sponsored by the university. However, in recent years, the university has stated that it will not sponsor conferences; rather, each academic unit and research centre is expected to look for partners that will provide partial or full sponsorships. Accordingly, academic units and research centres are trying to obtain external funds for conferences. In support of this, L10 mentioned that 'we have three annual conferences: one international and two national. We also organise conferences in collaboration with development partners in Addis Ababa, at which all our academic staff members present their research works.' All in all, the different conferences hosted by BDU have two advantages. First, they engage the staff in presentations and dialogue and enhance experience sharing among national and international scholars. Second, they benefit the university and its staff in arranging parallel forums with international conference presenters and organising public lectures, as well as creating partnership platforms.

Organising various seminars (Friday seminars, Ph.D. students' seminars, and public lectures) is recognised as one mechanism for developing a research culture at BDU. Regarding the Friday seminars, BDU's legislation declares that every academic unit is expected to run weekly seminars every Friday afternoon by its staff and postgraduate students. As a result, Friday afternoon class schedules are devoted to this purpose. The Friday seminars help staff and students to learn from each other. While research centres are also expected to conduct weekly seminars like academic units, mostly the seminars are arranged at academic unit level or department level. Although most academic unit seminars host academic staff and postgraduate students together, some conduct seminars for staff and postgraduate students independently. For example, an academic unit's experience was described as follows: 'in our academic unit, we run two parallel Friday seminars: one for academic staff and one for postgraduate students' (L10).

One important strategy the university uses to encourage a research culture is by incentivizing staff to publish. The university has given much emphasis to publications by reputable journals and publishers

by using the publications as criteria for various benefit packages such as promotion and housing competition, on the one hand, and directly paying money for publications, on the other hand. In this respect, BDU has twice paid publication incentives for its academic staff, once in 2018 and once in 2023. According to the data from the publication director, an amount of 2,024,650 Ethiopian birr was paid to academic staff for their publications in 2018, and 18,406,200 Ethiopian birr was paid in 2023. Moreover, for the third-round payment, 29,738,920 Ethiopian birr has been allocated although it has not yet been paid.

The leaders were asked whether paying incentives to staff for their publications is a feasible strategy. Most of them think that it is still feasible because many academic staff lack research engagement, and this payment may encourage them, to some extent, towards conducting research and thereafter publish:

> Publication incentives provided for the staff enhanced their research motivation. Because of this platform, my staff members conducted group research and published together. As a result of their publications, about 15 staff members have been promoted from lecturer to assistant professorship ranks within two years. (L10)

Another interviewee stated that 'publication incentives are awarded for staff who publish in reputable international and accredited national journals and publishers. This motivates staff members to publish in reputable journals (though publication is poor in our academic unit)' (L7).

However, it may not be a feasible strategy, for two reasons. First, doing research and publishing are part of any academic staff member's regular work. Thus, it is not meaningful to pay staff for their publications, as it is not an extra activity. Besides, as academic staff, they should do research for the sake of research rather than for the money they get from it. Second, BDU is paying this incentive by getting permission from the board, while it is against the rules and guidelines of the MoE and MoFED. Therefore, the management will be held accountable and may be accused of using public money for unpermitted activity.

To enhance the research culture of its staff, the leaders have been allocating a budget for research projects. There is an annual research project proposal development to get research funds. This research project development allows staff to participate in the process of developing and evaluating research projects. Bahir Dar University prioritizes sponsoring group-based research proposals so that staff members get the opportunity to do research together and learn from each other:

> Group-based research grants / the mega research project (it is a team-based research project comprising senior and junior staff, postgraduate students, female staff, and stakeholders) approach the university follows helped staff to work together, share responsibilities, and learn from each other and get a better research budget. (L10)

Another strategy to develop a research culture among BDU staff is the attention given to the increasing number of university-owned journals. In this regard, BDU increased its journals from two to ten since the inception of its research university vision. These BDU-hosted journals allow junior staff to publish their work. Moreover, the journals support the conference leaders by publishing selected papers presented at the conferences after they have been peer-reviewed. Thus, in one way or another, they contribute to the development of a research culture among the staff.

Research capacity-building of academic staff is considered one mechanism of developing a research culture among academic staff and postgraduate students. In this regard, the university has been providing different types of short-term training, for example on data analysis software, research grant writing, and publication training, both at university and academic unit level. The university has also organised social ceremonies in the case of celebrating the university's anniversary and in relation to staff promotion acknowledgment programmes. For example, whenever academic staff are promoted to the rank of professor, ceremonies are organised, and the research experiences of the promoted staff are shared with the university community. In this way, the university professors get a chance to share the experiences they gained over the course of their academic and research journey. This also motivates other academic staff to aspire to the rank of professor and engage in research work.

One important mechanism for developing a research culture mentioned by the interviewees is the regular follow-up and support given to postgraduate students, particularly Ph.D. students. The university has developed guidelines to be followed for the whole journey of postgraduate students. Moreover, students are expected to present seminars and produce publications in order to graduate. A leader from an academic unit shared the following:

> In our academic unit, close attention is paid to postgraduate students' research work. For instance, in our academic unit, the master's student thesis work passes through close supervision in which every student presents five times from proposal to defence. In addition, the publication requirement for Ph.D. students to graduate in our academic unit is two articles while it is one publication at university level. (L10)

In addition to the regular follow-up and support of postgraduate students, enabling them to communicate their research outputs will be very helpful in enhancing a research culture:

> One path to enhancing a research culture is the communication of postgraduate students' research outputs on different online media (university, website, Facebook page). This helped us to reach our stakeholders and partners to see students' research works and select them for employment or other partnerships. For instance, one of our master's programme graduate's research work was selected and changed to a research project and now we are working with the French government. (L10)

One tool for enhancing a research culture at BDU is awarding researchers who publish better work and win international research projects:

> The university has also supported the share of project winners in its research publication and project incentive guideline document. Young researchers' award system: the university has a system of awarding young researchers for their research works and publications. This motivates the awarded staff for further performance and encourages others in their research. (L5)

- **Communicating/Sharing the university vision**

The leaders have been communicating the research university vision via various platforms. Once the vision was initiated by the top management, the vision was shared with the university community and external stakeholders, including the MoE. The leaders, particularly the top-level leaders, tried to communicate the vision through various mechanisms such as the Blue Book, face-to-face discussions, and television. L1 asserted that the vision was communicated using face-to-face discussions and publications such as newsletters, bulletins, and printed calendars:

> The research university vision is set by top management and shared with the university community and other external stakeholders through different mechanisms such as Blue Book distribution and face-to-face discussions. Moreover, the previous president (Dr. Baile Damtie) promoted the vision with the motto 'Wisdom at the source of the Blue Nile' in the university's newspaper in his regular column. The president tried to clarify what a research university is, why we need to become a research university, what the basic emphasis of the university will be, and what is expected of every staff member of the university. (L2)

> The university vision was continuously communicated to both the BDU community and external stakeholders. For this, I would like to give credit to the previous president (Dr. Baile Damtie) who had been writing in a newspaper in his column. Moreover, there were weekly BDU television programmes (named *Meskote Tibeb*) from the Amhara Media Corporation. (L15)

> The university, through its top leadership (president and vice presidents) tried to communicate the vision and the strategic themes via face-to-face discussions in senate meetings, academic units' annual plan evaluation meetings, university-based conferences, and via television (the university has its own television channel in collaboration with the Amhara Media Corporation). (L7)

However, the data indicated that in recent times, vision communication activities have not been as strong as previously:

> Before the national war crisis and the COVID-19 pandemic, the university management used to motivate staff in different forums towards research, publications, and seminars. However, recently not much communication has been provided by leaders about research university issues. In those few meetings the top management have with academic units during semester-based plan performance evaluation, general issues are discussed rather than vision-related ones. (L7 & L8)

The symbolic leadership activities derived from interviewees' responses, such as communicating the university vision and the development of a research culture, were similar to those derived from the document analysis, except for image building, which was mentioned in the documents but not by the academic leaders.

5.2.3. Major challenges leaders face

The following question was put to the leaders: 'What major challenges do you think are facing BDU leaders in their efforts towards achieving the research university vision?' Leaders mentioned a long list of challenges. The challenges were summarized based on the frequency (number of leaders) with which a specific challenge was mentioned. Figure 7 below illustrates the list of challenges and their frequency.

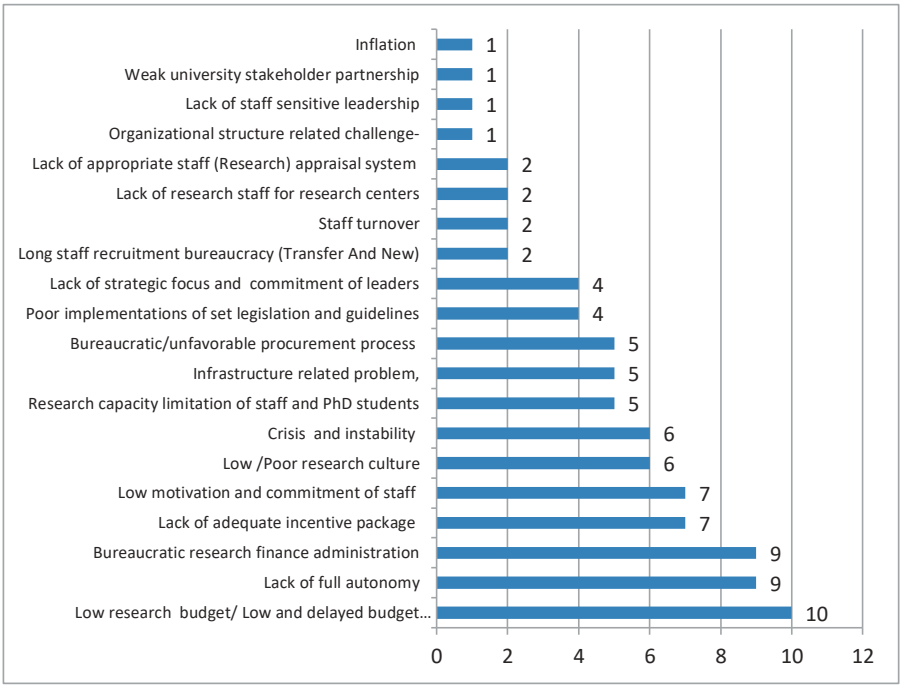

Figure 7. Major challenges facing leaders, Source: own summary from leaders' responses (November 2023)

The challenges were coded into themes in line with Bolman and Deal's (2017) four frames. The summary of the challenges according to the four frames is presented in Table 12 below.

Table 12. Major challenges expressed on the theme of leadership

Challenges	Frame	Frequency	Leaders interviewed
1. Organisational structure related challenge	Structural	1	L4
2. Long staff recruitment bureaucracy	Structural	2	L5, L7
3. Lack of appropriate staff (research) appraisal system	Structural	2	L3, L16
4. Poor implementations of set legislation and guidelines	Structural	4	L1, L2, L10, L16
5. Lack of strategic focus and commitment of leaders	Structural	4	L7, L8, L14, L16
6. Bureaucratic/unfavourable procurement process	Structural	5	L1, L6, L12, L13, L16
7. Lack of adequate incentive package	Structural	7	L4, L5, L8, L10, L11, L12, L13
8. Lack of full autonomy	Structural	9	L1, L2, L3, L4, L5, L6, L7, L14, L15
9. Bureaucratic research finance administration	Structural	9	L1, L4, L5, L8, L9, L10, L13, L15, L16
10. Staff turnover	Human resource	2	L5, L10
11. Lack of research staff for research centres	Human resource	2	L8, L11
12. Research capacity limitation of staff and Ph.D. students	Human resource	5	L3, L6, L7, L10, L14
13. Low motivation and commitment of staff	Human resource	7	L1, L2, L8, L10, L11. L12, L14
14. Weak university stakeholder partnership	Political	1	L7
15. Infrastructure-related problem	Political	5	L3, L5, L6, L7, L12
16. Low research budget / delayed budget allocation	Political	10	L1, L3, L4, L5, L7, L8, L11, L12, L13, L14
17. Lack of staff-sensitive leadership	Symbolic	1	L12
18. Low/poor research culture	Symbolic	6	L1, L6, L10, L11, L14, L15
19. Inflation	External	1	L9
20. Crisis and instability	External	6	L4, L5, L8, L9, L11, L14

The major challenges that emerged from the interview data were categorized according to Bolman and Deal's theoretical constructs and are elaborated in the following sections.

5.2.3.1. Structural challenges

The structural frame views organisations as organised and rational entities that aspire to ensure objectivity, effectiveness, and efficiency. The issue of rationality is expected to be secured through

the creation of a strong structure encompassing coordination, clear goals, strategies, rules, and guidelines which enable the effective flow of information so that activities will be done by the right person, at the right time, and in the right way. Although the interview data elicited various structural frame-related leadership activities, there were also several challenges, which are discussed in more detail in the following sections.

- **Lack of full autonomy**

The first structural challenge is the lack of autonomy. The university leaders are not in a position to create a favourable organisational structure that facilitates the coordination and utilisation of its resources and incentivizes its staff. One of the autonomy-related challenges identified was the intervention from the MoE, CSC, and MoFED which introduced unfavourable rules and guidelines.

> Though the university has been granted autonomy by the higher education proclamation, the autonomy granted by MoE is not complete. The university is performing its financial and human resources administration using the MoE, CSC, and MoFED. As a result, the university is not able to set its staff salary standards and recruit talented external staff. Besides, the university does not have full autonomy to use its internal revenue to incentivize its staff and implement its strategies. The university is working towards autonomy and, hopefully, it will be granted within the near future. (L15)

Another leader commented that 'currently the MoE is directly intervening in the university-related tasks such as deciding its structure, developing curricula, and even, very recently, conducting admission [entrance] exams for postgraduate students at the national level' (L2).

Beyond the government intervention, there is also the frequent legislative change from MoE which forces the university to change its own legislation as well:

> Because of the frequent legislative changes sent from MoE, BDU's senate legislation is revised two times within 13 years: first in 2014 and then in 2020. Senate legislation for me is a constitution that needs stability. However, still there is continuous revision at every senate meeting (particularly on promotion-related articles). Hence, this frequent revision is creating confusion among staff. Moreover, the MoE directed universities to run the Grade 12 leaving certificate national exam without the planning of the universities, which also severely affected the university calendar. (L4)

Another interviewee stated that 'pressure from frequently changing guidelines and rules from MoE and CSC creates instability in the university system. For instance, recently the MoE has sent proposed structures for all universities regardless of the university's differentiated mission' (L2).

Interviewees commented on unfavourable staff promotion-related rules set by the university because of the nationally harmonized guidelines designed and set by the MoE for all universities. This led to staff frustration due to lack of promotion. The promotion-related guideline was revised. Previously,

academic staff could be promoted from lecturer to assistant professor and from assistant professor to associate professor without a Ph.D. degree. However, the new law now requires a Ph.D. degree for these promotions.

- **Bureaucratic research finance administration**

The bureaucratic research finance administration was a major challenge. The rigid financial administration system the university follows (set by the MoFED) complicated research activities. Moreover, the financial settlement was slow and discouraged many researchers from engaging in research projects, particularly senior staff who are not interested in research. The problem was aggravated by the researchers' poor research culture and the misunderstandings between financial staff and researchers:

> The university financial administration is very rigid, which extends bureaucratic routines. Because of the poor research culture and the bureaucratic financial procedures, the research staff are not properly utilising the budget allocated. Some researchers are spending money on activities that are not allowed by the finance sector; others do not use their allocated money in time and proceed to the next step. On the other hand, the finance section people are not cooperative enough to explain the right financial rules and procedures to researchers. Both the researchers and the finance section people have misconceptions about each other. Researchers perceive that the finance people are intentionally creating delays and the finance people perceive researchers are committing fraud. In between, the budget sometimes remains unused, and the research activities are delayed. (L1)

> Though the university is focusing on research works, the financial administration system is very rigid and takes long to settle. Staff are complaining that the financial settlement process takes as much time as it takes to conduct the research. Unless the university follows a grant approach to research in which research results are audited instead of financial auditing, many researchers will stop engaging in research. (L4)

One interviewee reflected as follows on the financial settlement process: 'The tedious nature of research financial settlement makes academic staff refrain from research participation. For instance, in this academic year, I do not participate in research proposal development because of this bureaucracy' (L9).

- **Lack of adequate incentive package**

The third challenge described is the lack of adequate incentive packages for staff. The university does not have its own salary and allowance structures but follows the MoE's packages designed for all public universities. The basic salary and the housing allowance designed by the MoE are very low compared to other sectors. This low salary and allowance package cause staff to engage in other

external income-generating activities, compromising the university's activities, as well as leave the university and join other organisations for better salary and benefit packages:

> The amount of salary as well as housing and other allowances the university pays to academic staff are very low. This demotivates the staff from focusing on their research, teaching, and community service activities as expected. For instance, in our profession, an assistant professor at the university is employed for 15,396 Ethiopian birr. However, the same professional will earn a 21,000 ETB basic salary and better allowances when employed in other public sectors at entry level. Moreover, the years of service at the university are not considered for a career increment for jobs in other public sectors. This makes our staff leave BDU and join other sectors. (L5)

> The university has a very low staff salary and incentive package. The amount of staff's basic salary and housing allowance is very low, which does not even allow them to cover their monthly living costs. Moreover, there is no consideration of experience for salary and allowance improvement. For instance, a senior professor with 30 years of teaching experience and a junior professor with five years of experience have the same salary and allowance. (L11)

> The amount of salary paid to academic staff is very low, and this makes our staff leave and join other organisations. In my academic unit, it is difficult to attract better research staff from outside and to retain the existing staff. (L10)

The lack of attractive professional allowances for researchers was echoed by another leader:

> Although there is a research budget granted for staff from the university, it doesn't include professional fees for researchers. They are expected to use only per diem when they're on data collection out of their home city. However, no fee is allowed for researchers' engagement in literature review, research tools development, data entry, analysis, discussion, and writing up of research work. This discourages the staff from research engagement because one of the reasons why the staff are engaged in research activities is to get money to subsidize their livelihood. When they fail to do so, they prefer to be engaged in other income-generating activities outside of the university, even compromising their activities at the university. (L4)

- **Bureaucratic/Unfavourable procurement process**

One of the challenges described was the bureaucratic procurement procedure. The university's procurement procedure is set by MoFED and does not consider the university context. This procedure creates a serious bottleneck in the university's research facility procurement process. Because of this rigid procedure, the university does not receive the timely supply of required materials of the required quality and at a reasonable price:

> The university is working with financial regulations set by the MoFED, which are totally not conducive for an institution aspiring to a research university vision. The rules, regulations, and guidelines from the ministry offices are a kind of one-size-fits-all and not appropriate for university activities, especially research. For instance, the procurement procedures for a university that might call for an international bid or for a local-level institution that calls for the purchase of stationery are all the same. (L15)

The procurement system of the university is not conducive to acquiring the necessary facilities of the expected quality, at the appropriate time and for a reasonable price. Mostly the purchased facilities are of poor quality, at an exaggerated price, and significantly delayed:

> There is a bureaucratic procurement process that results in inflated and much-delayed purchases. For example, a laboratory reagent I could buy for $10 abroad reached us at a price of $1,000 from merchants which charged very inflated prices. (L12)

- **Poor implementation of legislation and guidelines**

The interview data also revealed that implementing the set rules and guidelines presents a challenge. Some of the guidelines that were not implemented included postdoc programme guidelines, intellectual property rights guidelines, and some articles of the senate legislation. Failing to implement guidelines can have a negative impact on the university's performance in terms of staff rotation, research staff concentration, and staff research capacity.

- **Lack of strategic focus by leaders**

Leaders' lack of strategic focus and commitment was mentioned as a challenge. Leaders are focusing on routine and crisis management activities rather than strategic issues that could contribute to realizing the research university vision:

> The university leadership (at all levels) lacks strategic focus. The number of university staff and students is increasing, and the management mostly engages in daily routines. Most senate and academic commission meetings deal with routine issues such as student issues, food, campus security, and the like. (L14)

Another leadere responded that 'the leaders are not committed enough to regularly communicate the university's vision and strategies. In my view, the vision communication practice by leaders has been weakened recently compared to previous years' efforts' (L8)

> Irrespective of the discussions in different forums about the vision, some top-level leaders lack a common understanding of the university's vision. Moreover, they are not committed to performing the planned activities effectively. Besides, all academic unit deans are not equally performing towards the achievement of the research university vision. I feel that there is also a leadership capacity limitation to handle strategic issues. (L7)

As a result of the lack of strategic focus, leaders do not regularly monitor their activities or engage in improvement interventions in terms of their strategic, annual, and operational plans. They mostly engage in crisis activities that require immediate solutions. The leaders' failure to actively participate in strategic activities may lead to ineffectiveness and inefficiency.

- **Bureaucracy delaying staff recruitment**

Although there has been a positive culture in terms of attracting external staff, the staff recruitment bureaucracy remains slow. In this regard, an interviewee used the example of staff transfers:

> The university has a policy direction to hunt minds outside. Every academic unit is encouraged to look for better/more talented staff elsewhere to join BDU. However, the human resources management section is very rigid and uncooperative in implementing this policy and facilitating the transfer of external staff. (L5)

Another interviewee described an example of the staff recruitment procedure:

> The university has a slow new staff recruitment and selection process. The call is announced in the mass media after all needs are collected from all academic units. Academic units do not have a mandate to announce calls independent of other academic units. This takes a long time, sometimes more than six months. (L7)

- **Lack of appropriate appraisal system for research staff**

Lack of an appropriate research staff appraisal system was described as a structural challenge:

> The university does not have a performance appraisal system for its researchers separate from the general academic staff appraisal used. However, I believe that researchers' performance should be assessed with different standard criteria and in terms of different career levels. For instance, in other countries, there is a kind of career ladder such as junior researcher, researcher, chief researcher, scientist, chief scientist and the like. (L10)

The university's organisational structure is a challenge, as described in the following example:

> The university's organisational structure allows for a larger number of administrative staff than academic staff. In my opinion, the ratio of administrative to academic staff should have been 1:3. However, the reality is the reverse, which is 3:1. This has a great implication on the budget allocation/share trend. The university is spending more of its budget on administrative staff than on research staff. Moreover, this places a burden on the offices, facilities, and transportation services. (L4)

The staff performance appraisal system used by BDU is similar to that of other public universities, regardless of the difference in terms of its vision and strategic areas. This created a challenge to properly assess the research performance of its staff and recognise their contributions towards achieving the research university vision.

The structural challenges based on academic leaders' perceptions were different from those revealed by the document analysis. The two structural challenges indicated by the results of the document

analysis were poor research practice and failure to regard research as a priority, and weak governance and leadership.

5.2.3.2. The human resource frame

The human resource frame emphasises the development of people who contribute to organisational development. It focuses on providing the organisation with capable, motivated, and satisfied people who are committed to organisational growth. Moreover, the human resource frame considers the organisation's efforts toward addressing the needs of the people who work for it. In this regard, the data showed different leadership efforts but it should be borne in mind that the leaders face different challenges in their human resource development efforts. The human resource challenges identified are presented in the following sections.

- **Low motivation and commitment of staff**

Low motivation, low commitment, and even overt resistance were recognised as major challenges. Many staff members are not performing their research, teaching, and community service roles to the expected levels. For instance, the university's research and community service guideline[1] (BDU., 2019) indicates that every academic and research staff member is expected to conduct research and publish research articles every year or every two years:

> Staff resistance is among the challenges we experience. Some staff members are not open enough to accept the vision as well as to implement university strategies. For instance, staff are not engaged in research grant writing, group research work, publication, national and international conferences, Friday seminar presentations, and community service activities to the expected levels. Moreover, some staff are not committed to executing their roles and responsibilities in line with the rules and regulations of the university. (L1)

> Lack of commitment to implement the plans is among the challenges I often observe. Though the plans and guidelines are smart enough, the leaders and staff are not implementing them effectively. There is lack of staff commitment to follow up and support students' progress, particularly advising postgraduate students. I have the feeling of 'who cares' from academic staff on advising their postgraduate students. There is also low interest of staff to conduct research. I even observe a feeling of hopelessness among academic staff because of their low standard of living. There is also the low concern of staff for quality students who devote much effort – those who copy others' work receive the same results, or at times those who copy receive better results. (L2)

There are also staff members who prioritize their private businesses over the university's activities:

[1] It is mandatory for all full-time teaching staff at University to conduct research and publish at least one research article every two years in peer reviewed reputable journals. However, Research staff shall publish at least one research article every year in peer reviewed reputable journals; (p.51)

> People are not committed to devoting all their potential to university activities because of the low payment they get. They usually engage in outside personal income-generating activities. Many staff are engaged in other private income-generating activities outside, such as consultancy, supermarkets, and business dealing (brokering). They do not believe that their lives will be improved through upgrading their education. As a result, they do not even want to continue with their Ph.D. Their daily communication is about how to make a business outside of their academic and research-related activities/performances. Working for the university is regarded as secondary by the staff. (L11)

- **Limited research capacity of staff**

The data disclosed that the academic staff's low or limited capacity to engage in research-related activities was a challenge. Many staff members are not capable of writing a winning research proposal. For example, L3 specifically commented that 'though the university needs staff to engage in research project development, the staff are not competent enough to write and win grants and mobilize resources to the expected level'.

Among the academic leadership was there is a belief that the staff and Ph.D. students are not competent enough to conduct research that will have positive impacts on the community's lives. Moreover, it was revealed that the leaders are afraid the staff are engaged in research activities simply for the sake of getting money to subsidize their income:

> Regardless of the efforts made and achievements gained, still a large number of staff lacks the competence to conduct research and publication. Particularly in our academic unit, some teachers and most Ph.D. students are not competent enough to conduct research and produce publications. Because of this, our students are unable to complete their Ph.D. studies on time. (L7)

- **Staff turnover**

Staff turnover was identified as a problem that resorts under human resource challenges. The data revealed that the very reason for staff leaving their academic units was the search for better salaries and incentives from other organisations, particularly nongovernmental organisations. For example, L5 said that 'as the university pays less and others pay better, our staff (particularly in our school) are continuously leaving the university and joining other organisations':

> The salary and allowance package of the university is very low compared to other organisations that could recruit our staff outside. As a result, many staff members from our academic unit left us for the sake of better income. Mostly they remain here until they get their second (master's) degree. (L10)

- **Lack of research staff for research centres**

Another challenge the leaders revealed was the lack of permanent research staff for research centres. The lack of permanent research staff challenged their units' performance to mobilize resources through research grant writing. There is no permanent research staff beyond the directors working full-time for the centres.

Only one human resource challenge, limited staff capacity, perceived by academic leaders was similar to challenges revealed by the document analysis. The two major challenges found in the documents were not identified during the interviews, namely, poor research practice and weak community services practice.

5.2.3.3. The political frame

The political frame perceives organisations as complex entities that accommodate differences, competition, and conflict over scarce resources. This complex environment calls for a political leader who can accommodate differences and competition over individual and organisational values and needs through negotiation, bargaining, and fair resource distribution. The data from the documents revealed some activities related to the political frame, as presented above. By comparison, the leaders identified other challenges that resort under the political frame. These challenges are discussed in the following sections.

- **Low research budget**

As illustrated in Figure 7, the first challenge identified was the low research budget allocated by the university. While the allocation of a regular annual research budget is acknowledged as one of the primary activities of leaders, this budget is considered inadequate for the needs of the academic units and research centres. A leader described the challenge of the low research budget as follows:

> The amount of research budget allocated at the university as well as academic unit level is very low. Compared to the university's intention to become a research university, the budget allocated for research is still inadequate. It is used for nothing, leave alone contributing to the achievement of the research vision of the university. (L7)

The university budget in general is small compared to the range of activities relevant to the vision. Even considering the available budget, the share of the research budget is very low:

> The amount of annual budget the university gets from the government in general is small. From this small budget, the share of the research budget is very low. The major share of the university's annual budget goes to students' services and teaching staff's salaries. (L14)

Even though the total budget secured for the university; teaching, research, and community services activities is very low, over the past two years there has been a further decrease in the budget because of the crisis the nation has faced. Furthermore, the data derived indicate that there is a problem of transparency and delays, in addition to the low amount for research and community services.

The research share from the university's regular budget is very low, and most senior staff are not interested in participating in research using the regular budget, mostly because they obtain research funds from research projects and partnerships, and they are safe in this regard:

> The amount of budget secured for research and community service activities is very low. Moreover, it usually is released very late. As a result, we are forced to return the money without performing the planned activities. For instance, we had a community services project planned for the 2022/2023 academic year (July to June). However, the budget was released in June 2023, and we were requested to use it in the second half of June 2023. Finally, we returned the money to the university. (L5)

> There is a delayed release of the research and community services budget. As an example, we had a 1.5 million birr community services project but the budget was released in April. Consequently, we failed to use it and were forced to return the budget. (L9)

> The amount of budget allocated for research is not encouraging. I even feel that there is a lack of transparency in the research budget allocation for different academic units. There is a failure to strictly follow budget allocation criteria in assigning money for different academic units, as well as a failure to strictly implement research proposal evaluation guidelines. (L3)

The data also indicated that, because of the low research budget, staff are not interested in engaging in research projects funded by the regular university budget. Most of the staff do not like to conduct research with the university budget and prefer to obtain external research project funds.

- **Infrastructure-related problems**

The data indicate the university's efforts in providing infrastructure but there are problems in some areas. The problem overall is not severe but it differs from campus to campus. The challenges disclosed focus on the lack of adequate offices for staff, especially on the main campus, power and water services (on the Gish Abay campus), research infrastructure (in some academic units on the main campus), and the shortage of full-fledged labs (at university level).

- **Lack of staff-sensitive leadership**

One of the leadership challenges revealed related to the structural frame is the lack of staff-sensitive leadership, specifically the leadership's failure to understand the staff's poor standard of living as a result of low salaries. Unless staff are paid well, they cannot give due attention to research:

> I believe that a teacher should not be poor and bothered about his/her daily survival. Unless the leaders push upward to the ministry officials for better staff salaries and allowance packages, we will not get the quality staff we need for the research university. (L12)

- **Weak university–stakeholder partnerships**

Concerning the weak university–stakeholder partnerships, the data indicate that the creation of partnerships is limited to some academic units. Most academic units do not have such reliable partnerships.

The political challenges identified during the document analysis and from leaders' perceptions communicated during the interviews (poor research practice due to inadequate funds and infrastructure, as well as poor communication and partnerships) were identical. However, the document analysis revealed weak governance and leadership, but this was not identified during the interviews.

5.2.3.4. The symbolic frame

The symbolic frame views organisations in terms of creating meaningful values and engaging in behaviours that strengthen the created values in terms of rituals, ceremonies, and the like. The two symbolic activities identified were research culture development and communicating/sharing the vision.

- **Research culture development**

The university has been implementing various strategies to develop a culture of research and academic dialogue. However, the leaders faced various challenges in this regard. The symbolic challenges revealed are categorized under low/poor research culture and are discussed below.

- **Low/Poor research culture**

Among the academic leaders there was a belief that a low or poor research culture among staff members is a primary challenge encountered by leaders. Regardless of the leaders' efforts to develop a research culture using various mechanisms, the staff are not valuing and adopting a research culture to the expected level.

> Though the university management has been trying its level best to engage the staff in grant writing, research works, publications, and research result presentations in different forums, a large number of staff members are not yet doing that. There are many staff who do not publish articles or present their works in conferences and seminars, and do not engage in

> project grant writing. Even the daily language of staff is not about academic and research issues; rather it is the same as that of businesspeople. (L15)

Another leader reflected that 'There is poor participation of staff in research forums. The number of publications is increasing but the number of staff who are publishing remains low.' (L14)

> There is also staff resistance to participating in research culture development initiatives, like conferences and Friday seminars. Moreover, staff give more value for money than research; the staff who are engaged in research activities do so mostly for the sake of the money they get rather than the scientific experience they could develop because of their low standard of living. (L6)

Poor research practice or culture and limited staff capacity were two symbolic challenges that were revealed equally by the document analysis and the interviews. However, the document analysis also identified weak governance and leadership in terms of inspiring and shared vision, missions, and values among university staff, whereas the interviews disclosed a lack of staff-sensitive leadership.

5.2.3.5. External environment-related challenges

Some of the challenges identified were not categorized under any of the four frames of Bolman and Deal. Accordingly, they are presented as external environment-related factors and comprise the issues of crisis and instability, and inflation. These issues are discussed in more detail in the following sections.

- **Crisis and instability**

The eaders identified the crisis and instability caused by the COVID-19 pandemic and the Ethiopian civil wars as major challenges. These events created problems for the university in terms of budget reductions, decrease in sponsoring, frequent changes in the schedule of the academic calendar, and the research participation of staff. A statement reflected that 'we have been engaged in crisis management over the past four years instead of focusing on the university's strategic issues' (L14).

Over the past four years, because of the COVID-19 pandemic and the civil war, the university has been exposed to unstable schedules and low-budget assignments. The university leaders have been engaged in crisis management issues rather than strategic matters: 'In the current academic year, for example, we have been idle for the past four months [July to October]' (L9).

The country has been in crises over the past three years, which has resulted in unstable schedules and low-budget assignments:

> Starting from 2020, because of the COVID-19 pandemic and then the civil war, and currently the war in the Amhara Region, the university staff were not active enough in research activities. Besides, the number of sponsoring organisations is decreasing and the tourism sector is weakening; the research budget has also been reduced. For instance, this research centre has not received any budget for the past six years. (L11)

Furthermore, the data showed that the recent crisis and unstable situation is seriously endangering the staff's livelihood beyond research activities: 'The current context is very difficult to even survive and doing research is something of a luxury issue' (L8).

- **Inflation**

With regard to inflation as a leadership challenge, the data indicated that although the university research budget is increasing from year to year, its purchasing capacity is weak because of inflation. The price of research inputs and facilities is increasing at an alarming rate.

One of the external challenges explored in the interviews (crisis and instability) is similar to those identified by the document analysis. However, leaders' perceptions indicated inflation to be an external challenge but this was not the case with the document analysis; some challenges emerged from the document analysis but not from the interviews.

5.3 Leadership Orientations of Leaders

The study explored the leadership orientations pertaining to the research university vision and the path towards that vision using Bolman and Deal's (2017) four-frame model. The leaders' perspectives are listed in Table 13 below.

Table 13**.** Constructed leadership frames of perceptions on the research university and its path towards the research university

Leader	Structural Activity (7)	Human resource Activity (2)	Political Activity (4)	Symbolic Activity (2)	Total number of frames used	Orientation
L1	7	2	3	2	4	Multifram
L2	4	1	1	2	4	Multifram
L3	4	1	3	1	4	Multifram
L4	5	2	2	2	4	Multifram
L5	4	2	1	1	4	Multifram
L6	3	2	1	1	4	Multifram
L7	1	2	2	2	4	Multifram
L8	1	2	3	2	4	Multifram
L9	2	2	3	2	4	Multifram
L10	4	2	2	1	4	Multifram
L11	2	1	0	2	3	Multifram
L12	3	1	1	1	4	Multifram
L13	5	1	2	1	4	Multifram
L14	3	2	2	2	4	Multifram
L15	3	2	1	2	4	Multifram
L16	4	2	2	1	4	Multifram

Key: *(1) Numbers assigned for activity in brackets represent the number of activities identified under each frame; (2) Numbers assigned for each leader under each frame represents the number of activities mentioned by a specific leader.*

Table 13 depicts each leader as having a multiframe leadership approach. Specifically, 15 out of 16 interviewed leaders' perspectives resort under all four frames, with one exception – Leader L11, who included challenges under three frames but excluded the political frame. Table 13 also indicates that 15 of the leaders' perceptions are aligned with the four frames, mentioning at least one and at most seven activities out of the seven structural leadership activities. With regard to activities, the leaders mentioned at least one and at most two human resource leadership activities. They also cited at least three and at most three political activities, and at least one and at most two symbolic leadership activities.

The challenges leaders face on their journey towards the research university vision is presented inTable 14 below.

Table 14. Major challenges in terms of the four leadership frames

Leader	Structural (9)	Human resource (4)	Political (2)	Symbolic (2)	Total frames used	Orientation
L1	4	1	1	1	4	Multiframe
L2	2	1	0	0	2	Double-frame
L3	2	1	2	0	3	Multiframe
L4	4	0	1	0	2	Double-frame
L5	4	1	2	0	3	Multiframe
L6	2	1	1	1	4	Multiframe
L7	3	1	2	0	3	Multiframe
L8	3	2	1	0	3	Multiframe
L9	1	0	0	0	1	Single-frame
L10	3	3	0	1	3	Multiframe
L11	1	2	1	1	4	Multiframe
L12	2	1	2	1	4	Multiframe
L13	3	0	1	0	2	Double-frame
L14	2	2	1	1	4	Multiframe
L15	2	0	0	1	2	Double-frame
L16	5	0	0	0	1	Single-frame

Key: *(1) Numbers assigned to challenges between brackets represent the number of challenges identified under each frame; (2) Numbers assigned to each leader against challenges under each frame represents the number of challenges mentioned by a specific leader.*

Table 14 indicates that 10 of the leaders exhibit a multiframe orientation. Among them, five leaders' perceptions align with four of the leadership frames, while the orientations of the other five leaders correspond to three of the frames. Specifically, L3, L5, L7, and L8 employed all frames except the symbolic frame. L10's perceptions were in line with all frames except the political frame. Four out of the 16 leaders' perceptions indicate only two of the frames. L2 identified challenges related to structural and human resources, while L4 and L13 mentioned challenges associated with the structural and political frames. L15 highlighted challenges related to the structural and symbolic frames. Finally, the perceptions of two leaders, L9 and L16, focus solely on challenges related to the structural frame.

From the table it is also evident that the leaders demonstrated a holistic approach by aligning with all four frames—structural, human resource, political, and symbolic—when addressing challenges on their journey toward realizing the research university vision. Leaders mentioned at least one and up to five structural challenges out of the nine identified, and they described at least one and up to two human resource challenges out of the four identified. Leaders cited at least one and up to two political challenges out of the two identified, and they mentioned at least one symbolic challenge out of the two identified.

In summary, it seems that the leaders employ a multiframe orientation when addressing activities and challenges related to their journey toward the research university vision of (refer to Appendix 7). Their ability to navigate these diverse perspectives may contribute to their effectiveness as leaders.

6. DISCUSSION

This study concentrated on exploring the research university vision and the path toward achieving that vision within the context of institutional leadership at Bahir Dar University. To achieve these research goals, document analysis and interviews were used as methods for data collection. The study used four BDU strategic documents, the 2014 Blue Book, the second five-year strategic plan (2015–2019), the ten-year strategic plan (2020–21 to 2029–30), and the 2020 revised senate legislation. Interviews were conducted with a total of 16 academic leaders. The interviews were guided by four questions, and the results of the study are presented thematically in line with these interview questions. The following sections discuss the results of the literature review and the interviews.

6.1. Leadership Perceptions of Research University Vision and its Importance

In the context of institutional leadership, a research university is defined by its mission, resource mobilization and distribution, research culture development, and good governance.

Bahir Dar University is perceived as an HEI which has a differentiated mission of mega and thematic research. A research university is all about identifying thematic research areas that complement its competitive advantage and have the potential to advance the socioeconomic development of both the local and national communities. A research university strives to enhance its research productivity and make research its identity (culture).

In line with this research finding, various scholars have attempted to conceptualize a research university as an HEI devoted to research as a core element of its mission (University World News, 2013; Altbach, 2011; Steven, 2002; Taylor, 2006). Research universities are also acknowledged to be institutions enthusiastic about knowledge creation and dissemination, comprising various disciplines and equipped with appropriate infrastructures for higher-level teaching and research activities (Altbach, 2013; Mohrman & Baker, 2008). According to Altbach (2011), Steven, (2002), Taylor (2006) and Mohrman and Baker (2008), a research university emphasises research activities over its other roles. Therefore, it is possible to infer that the key mission of a research university is to conduct research that contributes to knowledge creation.

Research universities are known for their quality problem-solving research, research-led teaching, and emphasis on postgraduate programmes. In this regard, Taylor (2006) summarized the basic features of leadership in research universities as the 'presence of pure and applied research, delivery of research-led teaching, breadth of academic disciplines, a high proportion of postgraduate research programmes, high levels of external income, and an international perspective' (p. 4). Moreover, the

NAS (2012) has also asserted that in the context of American, research universities are characterized by the presence of 'values of intellectual freedom', 'initiative and creativity', 'excellence', and 'openness. In support of this, Kerr (2001) argues that research universities are involved in both research and teaching by hiring full-time academia with doctoral degrees.

The results of the present study are aligned with the HERANA concept of a research university, which emphasises being a top-ranking, globally recognised institution, serving as a hub for academic excellence, producing high-calibre research and scholarship, producing knowledge outputs, and contributing to the development of the country and its surrounding areas (Bunting et al., 2017). In a similar vein, Calhoun (2006, p. 17) states that 'research productivity is a central way in which institutions compete for distinction from each other in the prestige hierarchy, and they demand it of their faculties even where they make minimal time and facilities available for such research.' The results of this study are also consistent with the MoSHE (2020) definition of a research university, which has a strong emphasis on conducting research and teaching, with a primary concentration on graduate studies.

In addition to its mission, the research university vision is conceptualized in terms of its resource availability and fair distribution. The results emphasised the availability of talented staff who are capable of providing quality research and teaching; financial, infrastructure, and resource mobilization; and capable of serving the community. This is supported by Mukherjee and Wong (2011, p. 44) who state that 'research universities are renowned for being extremely selective; they recruit top teachers from a global talent pool, grow their graduate enrolment relative to undergraduate enrolment, and admit the smartest and brightest students both domestically and abroad'. Altbach (2009) also asserts that research universities have some common characteristics such as budgeting intensively, an absence of corruption, competent and committed research staff, performance-based promotion, competent students, a research culture, and competent leadership.
Salmi (2009) equated research universities with world-class universities and summarized their characteristics in terms of alignment with three key factors namely, 'a high concentration of talent among faculty and students, abundant resources to offer a rich learning environment and to conduct advanced research, and favourable governance, which is apparent in the high degree of academic and managerial autonomy of research universities' (p. 7). Similar to Salmi (2009), Douglass (2016) listed the following as being qualities of a world-class university: top rankings, excellent facilities, a culture of excellence, an internationally recognised brand, and highly influential research.

The research revealed that good governance was recognised as one attribute of a research university: research universities perform better in their mission and use their resources efficiently due to the presence of good governance. Good governance is considered among the quality characteristics of research universities globally (Xiao & Chan, 2020; Salmi, 2009). In this regard, Xiao and Chan (2020) in their article entitled 'The States, Germany, the United Kingdom and France' based on the review of research universities' governance structures in four Western countries, stated:

> It was found in common that major research universities have: (1) a governance structure with responsibilities of components specifically defined; (2) distinct separation of business affairs and academic work; (3) good collaboration among the entities of their governance structure; and (4) great respect for academic freedom and independence (p. 17).

In general, in the context of institutional leadership, a research university is conceived as an institution differentiated for conducting theme-based grant research, mobilizing talented staff and adequate resources, enhancing its research productivity, and then contributing to the social and economic development of the local and national community. The perceptions of leaders concerning BDU's research university vision are consistent with the definitions presented in international, African, and Ethiopian contexts. However, in the context of institutional leadership, the research university vision has certain peculiar features. These include having at least 50% of teachers hold Ph.D. degrees, advising postgraduate students, and attending at least one renowned research conference; increasing the number of staff at assistant professor or higher rank from 200 to 800; increasing the share of its research budget to 40% of the university's budget; increasing the share of postgraduate students to 50%; and increasing the number of Ph.D. programme graduates to 100 per year in at least 20 different disciplines.

It was claimed that the research university vision served as a pivotal instrument to think differently and improve the research performance of the university. This will be achieved by providing greater emphasis on the research mission of the university. The study also revealed that the vision serves as a compass to identify where the university is, where it wants to go, and why it wants to go there. This means that a clear and persuasive vision can play a driving role in organisational change.

This above finding is supported by scholars who claim that leaders who can set a convincing vision of what a university could be are more likely to drive change effectively. For instance, Bolman and Deal (2021) assert that a vision is vital for an organisation: 'Vision turns an organisation's core ideology, or sense of purpose, into an image of the future. It is a shared fantasy, illuminating new possibilities within the realm of myths and values' (p. 256). A vision, performance standards, focus, and direction are all facilitated by effective leaders. It is also claimed that effective leaders are vital to support creating a clear vision, performance standards, and areas of emphasis and direction (Bolman & Deal, 2021).

This finding is also supported by Kotter (1996), who claims that the vision serves three functions: first, it makes the change's general direction clearer; second, it inspires people to take appropriate action by helping them understand why they should work through their short-term pain; and third, it coordinates the actions of all parties involved, thereby reducing waste and associated costs. Studies by Martin et al. (2014) and Vlachopoulos (2021) also support the findings of this study. According to

these studies, having a vision inspires and unites leaders and teams to see the path they are on, work toward a shared goal, and tell a compelling tale of change that inspires everyone to be a part of it.

Another essential aspect of the research university vision is the need to contribute to national development. The findings show that the contribution of universities is vital for Ethiopia to achieve its aspiration to become a lower-middle-income country. Consequently, BDU, as one of the senior universities in the country, underlined that it was the right time to think of its place in national development and revise its strategies. In this regard, one reason why BDU is aspiring to become a research university is to contribute to national economic and social development by developing the knowledge and skills of intellectuals and model institutions in influencing national policy.

In line with the above, Mohrman and Baker (2008, p.5) claim 'in a knowledge-intensive society, the research university is a key institution for social and economic development'. Mohrman and Baker (2008) further asserted that research universities are shifting their focus to a more global scope, emphasising training of the next generation of scholars. In addition, Marginson (2007) noted that the products of HEIs benefit the general public in the following ways:

> First, these organisations contribute to the economic development of the community through enhancing the human capital of students, because the benefits of the instructional services are not limited to the students. Second, higher education institutions serve the public by producing research. Third, these institutions directly serve their local, regional, national, and global communities through various community engagement activities. (p. 328)

Similarly, Altbach (2013) asserts that, in the developing world, research universities have not yet attained the top levels of global rankings. However, he believes that they are extremely important for the social and economic development of their countries. Yizengaw (2004) also claims that, though there is a higher public demand, the contribution of HEIs to the country's socio-economic development in Ethiopia remains lower.

The third important aspect of the research university vision is the need to use its competitive advantage. In this regard, the Blue Book indicates that BDU envisions becoming a premier university in terms of teaching, research, and technology transfer and using its competitiveness to support the nation's goal of becoming a lower-middle-income nation by 2025. Moreover, the interviewed leaders confirmed that BDU is motivated to use its potential location, history, and available human resources as competitive advantages to choose its priority areas in terms of programmes. In this regard, BDU has been nationally selected to run exceptional textile and fashion design as well as maritime training programmes that do not exist in any other universities. With regard to this, leadership scholars all over the globe have examined the type of leadership desired for organisations to persist being

competitive, and they found that leadership with a vision becomes a core component (Kantabutra & Avery, 2010; Kantabutra & Avery, 2007; Kantabutra, 2005; Hallinger, 2002).

6.2. Major Leadership Orientations Pertaining to the Research University Vision

The data from both the document analysis and the interviews revealed that the major leadership orientations on the path to the of research university vision were in line with all four frames of the Bolman and Deal model (2017). This indicates the leaders have a multiframe orientation: they utilised the structural, human resource, political, and symbolic frames in their efforts towards realizing the university's vision.

6.2.1. The structural leadership

On the journey toward the research university vision, leaders have undertaken different leadership activities that were classified in terms of the structural frame. The activities were categorized into three key areas: the development of different guidelines, the improvement or revision of the organisational structure, (restructuring and clarification of leadership positions), and the identification of strategic themes, such as the expansion of postgraduate programmes, initiating mega research projects, and establishing standardized labs and research centres.

In terms of revisiting the organisational structure, two leadership activities were performed namely restructuring and clarification of leadership positions. In the case of restructuring the design, the efforts focused on improving the existing one instead of starting from scratch. Accordingly, the activities related to organisational restructuring include the establishment of senior management (vice president) positions for research and community services; information and strategic communication with expansions at the middle and lower levels; and enhancement of the school of postgraduate studies. The restructuring of the mentioned positions helped the university to pay more attention to research activities and postgraduate programme expansions, which are considered the key strategic areas of the research university vision.

Consistent with this finding, a study by Lyon et al. (2014) using Bolman and Deal's model revealed that the development of an organisational structure was among the structural activities of leaders in the 'curricular reform initiative in a North American school of dentistry' and by Ruan et al. (2024) in their exploration of top-level leadership in Chinese universities as managers or institutional leaders. Leaders are expected to structure organisations in such a way that they can accommodate the organisation's mission, goals, and available resources. In this regard, Bolman and Deal (2017, p. 60) state that 'structure needs to be designed with an eye toward strategy, the nature of the environment,

the talents of the workforce, and the available resources (such as time, budget, and other contingencies)'.

Furthermore, Bolman and Deal (2017) emphasise the relevance of an effective structure to meet an organisation's existing circumstances, including its strategy, staff, technology, and environment. They appeal that problem-solving and restructuring are recognised remedies when organisational performance suffers from structural flaws. Bolman and Deal also assert that specialization and adequate division of labour allow organisations to improve their performance and boost efficiency. The fundamental tenets of the structural approach to Bolman and Deal emphasise two crucial aspects: division of labour and coordinating it accordingly. Moreover, building strong structures and teams and working towards institutional success are also acknowledged as characteristics of effective change-oriented leaders (Shattock, 2010).

The second leadership activity pertaining to revisiting the organisational structure is clarification of the leadership positions. According to the legislation document, aspects such as potential leadership positions at the different hierarchies of the university, the knowledge or skill requirements of the position holder, the specific duties and responsibilities of the persons in the positions, the procedures to be followed in recruiting leaders, and the duration of the position holders are of importance. It is vital for organisations' leaders to recruit, follow up, evaluate, and ensure accountability. This clarification benefits the organisation in assigning specific tasks, monitoring their implementation, evaluating the performance status, and taking appropriate remedial actions.

This result is consistent with the results of Flumerfelt and Banachowski (2011), who recognised clarifying roles and responsibilities as among the structural activities of leaders. Similarly, Ruan et al. (2024) revealed that assigned people and tasks in terms of positional hierarchy and scope of authority and supervised the implementation process were among structural leadership activities. One of the assumptions of Bolman and Deal's structural frame is that appropriate methods of control and coordination guarantee that the various efforts of people and groups work together. They also claim that, unless the leaders clarify the roles and responsibilities of everyone in the organisation, there will be ambiguity and confusion that may lead to difficulty in managing organisational change effectively. According to Bolman and Deal (2017, p. 373), 'change undermines existing structural arrangements, creating ambiguity, confusion, and distrust. People no longer know what is expected of them or what they can expect from others. Everyone may think someone else is in charge when in fact no one is.'

When it comes to structuring organisations, there are two issues to be addressed: 'differentiation and integration' (Bolman & Deal, 2017; Gallos & Bolman, 2021). Bolman and Deal (2017. p. 69) noted that 'organisations divide work by creating a variety of specialized roles, functions, and units. They

must then use both vertical and horizontal procedures to mesh the many elements together. There is no one best way to organise. The right structure depends on prevailing circumstances and considers an organisation's goals, strategies, technology, people, and environment' (p. 69).

The study revealed that different guidelines, legislations, and procedures were developed that facilitate the tasks of the different sections of a university, both in the academic and administrative wings. The guidelines include senate legislation, publications, resource administration, revenue administration and monitoring, budget administration, staff publication and research incentive guidelines, research and community services guidelines, residence house allocation guidelines, postdoc programme guidelines, intellectual property rights guidelines, and research ethics guidelines. Organisational guidelines play a vital role in clarifying how to perform activities at various hierarchical levels. Activities across different parts of an organisation should be coordinated without overlapping responsibilities. This coordination is possible through the presence of common as well as job-specific guidelines. Moreover, guidelines ensure better objectivity and less subjectivity in an organisation, as activities are judged according to the set guidelines rather than individual judgments.

This result corresponds with the results of Tull and Freeman (2011), (Clark and Lindahl (2014) and Lyon et al. (2014), who found that setting and implementing clearly defined policies and procedures were among the structural activities of leaders. According to Bolman and Deal (2017, p. 56) –

> Rules, policies, standards, and standard operating procedures are developed to ensure that individual behaviour is predictable and consistent. Rules and policies govern conditions of work and specify standard ways of completing tasks, handling personnel issues, and relating to customers and others.

Bolman and Deal (2017, p. xii) further indicate that the structural frame 'presents guidelines for aligning structures to situations, along with cases illustrating successful structural change'. Moreover, the guidelines contribute to ensuring rationality and objectivity, and have vital organisational benefits, commending what someone has to do – or not to do – in performing a specific task.

Irrespective of the development of the different guidelines and their importance, there were drawbacks from the leaders' side to implementing and properly communicating guidelines to the university community. Moreover, the guidelines were not recognsised for their contributions to creating a conducive environment for research university development. This strongly indicates that the simple presence of guidelines is not relevant without effective communication and implementation as well as being relevant to the organisations' objectives. In this instance, Bolman and Deal (2017, pp. 15–16) declared that 'problems arise when structure doesn't line up well with current circumstances. At that point, some form of reorganisation or redesign is needed to remedy the mismatch.'

One of the leadership activities under the structural frame is the identification of strategic themes or areas of setting strategic goals. This result is in line with the findings of Ruan et al. (2024) and Lutaaya (2024) which recognised planning and establishing institutional goals and priorities as structural leadership actions. Two five-year and one ten-year strategic plans were developed since the inception of the research university vision, based on the identified strategic themes that contribute to the achievement of the goals and visions of the university. The leaders also claimed that the strategic plans help the university to become focused in terms of organising and coordinating its resources towards prioritized activities to enhance its effectiveness and efficiency. In this regard, the leaders also asserted that they have identified themes and areas of excellence (such as textile and education) so that the resources are invested in the identified strategic areas of the university. Overall, the identified mission areas (thematic/strategic) include the expansion of postgraduate programmes, initiating mega research projects, the establishment of standardized labs, and research centres.

Bahir Dar University has strategically expanded its postgraduate programmes to enhance its research capabilities and contribute to the institution's transformation into a research-led university. Postgraduate studies play a crucial role in fostering research and generating valuable outputs. As a result, despite variations among academic institutions, BDU has expanded its postgraduate programmes (198 master's, 105 Ph.Ds., and 16 specialist and sub-specialty). The leaders also declared that external staff invitations and recruitment process facilitation are encouraged and supported by the top leadership.

The above implies that the path to becoming a research university is enhancing research engagement in different areas and disciplines that could contribute to the socioeconomic development of the community. Altbach (2007) stresses that; a research university is seen as a multifaceted, extremely complex organisation that fulfils a variety of social functions. According to Altbach (2013), research universities are academic establishments dedicated to the generation and dissemination of interdisciplinary knowledge. Moreover, research universities, both in developing and developed countries, are at the centre of national social and economic advances through the generation of knowledge and technology transfer (Mohrman & Baker, 2008). In a similar vein, Altbach (2009) suggests that a research university assists countries in training the human resources required for technology, leadership, and the generation of new knowledge.

The finding of this study is also supported by the Higher Education Research and Advocacy Network in Africa or HERANA, which indicates that having 25% of enrolment in postgraduate programmes is an input criterion for consideration of a research university. According to HERANA, a research university in Africa should be a centre of academic excellence, conduct top-notch research and scholarship, have a high academic rating that would make it a world-class university or at the very

least a leading university in Africa, and improve national and regional development through the knowledge it produces (Bunting et al., 2017). Similarly, the MoSHE (2020) indicates that research universities in Ethiopia should strive to have a large percentage of postgraduate students.

The initiation of the mega research project was one of the acknowledged strategic areas of the path towards the research university vision. The mega research project at BDU represents a concerted effort to synergize expertise, tackle community challenges, and elevate the university's research endeavours. This approach aids the university in maintaining focus and allocating sufficient funding to theme-based and multidisciplinary research activities, leading to improved publication outputs that may aid in the university's efforts to realize its research university vision. The findings are in agreement with the characteristics of research universities in Africa: engagement in high-quality research and scholarship are mentioned (Bunting et al., 2017). Moreover, the results are also consistent with MoSHE (2020) in terms of the the availability of research projects.

The establishment of standardized laboratories was among the strategic dimensions on the path towards the research university vision. Over the past decade, BDU has dedicated effort and budget to enhancing existing labs and constructing new ones. Bahir Dar University's standardized labs play a pivotal role in advancing research, education, and practical skills development. This activity of leaders is among the characteristics of research universities acknowledged by various scholars and institutions such as Altbach (2013), NAS (2012), and MoSHE (2020).

The establishment of research centres and institutions represents a strategic move to enhance research excellence and align it with the university's vision. The research centres were launched based on BDU's competitive areas and national development needs. Research centres play a crucial role in boosting the university's research mission performance and contribute to the realization of the research university vision. These centres serve as hubs for focused research activities by hosting permanent research staff who devote 75% of their times to research. Generally, on the path towards the research university vision, research centres serve as dynamic hubs for knowledge creation, problem-solving, and advancing the university's research agenda.

The results of this investigation are in line with Kumar (2017, p. 454), who stated that the 'focus on university research has spurred the creation of research centres, with many dedicated to specialty areas of attention'. Research centres are common in HEIs: while some receive their funding from their sponsoring universities and others depend on external funding for research (Brankovic & Cantwell, 2022; Altbach, 2014; Rumbley, et al., 2016). According to Mallon (2006, p. 502), research centres and institutes provide various benefits to academic institutions, for example, 'aid in faculty recruitment and retention, facilitate and incubate scientific collaboration, secure research resources

and provide research support, offer a sense of community and promote continued learning, afford organisational flexibility, and focus on societal problems and raise funds'.

Kumar (2017, p. 454) states that 'the goal of a research centre is to enable interaction between faculty, scholars, students, and industry to enhance research opportunities, academic excellence, real-world problem-solving, and knowledge creation and dissemination.' Furthermore, Sabharwal and Hu (2013), in their study on the impact of affiliation with a research centre on research productivity, collaboration, and the careers of faculty members, reveal that 'on average, the research productivity of faculty members affiliated with a research centre is higher than [that of] non-centre-affiliated faculty members' (p. 1301).

The findings of this study are also consistent with Altbach (2014), who noted that research centres are common in HEIs, while some receive their funding from their sponsoring universities and others depend on external funding for research. Rogers et al. (1999) note that 'research centres obtain much of their funding from sources external to the university and serve a boundary-spanning function in facilitating flows of information and resources between the university and its environment' (p. 687). Moreover, Mallon (2006, p. 502) clarified that there are various benefits research centres and institutes can provide to academic institutions, such as, 'aid in faculty recruitment and retention, facilitating and incubating scientific collaboration, securing research resources and providing research support, offering a sense of community and promoting continued learning, affording organisational flexibility, and focusing on societal problems and raising funds.'

Regardless of the contributions the research centres made in terms of securing external research funds and producing research publications, they did not excel to the expected level and were challenged to host research staff because of a lack of full autonomy to recruit research staff with better salaries, distinct from academic staff. Moreover, they do not get an adequate budget from the university, especially over the past five years. This indicates that research centres do not qualify for the excellence level, but they are also not competing for budget from the university. In this regard, Mallon (2006) also found that research centres can create pressures and challenge institutional leaders. According to the author, the research centres 'can create competition with departments over scarce resources, complicate faculty recruitment, contribute to a fragmented mission, resist effective evaluation, pose governance problems, and impede junior faculty development' (p. 502). Furthermore, Stahler and Tash (1994) state that research centres of universities are criticized for their lack of interdisciplinary cooperation and visibility, and their failure to harness the intellectual potential of faculty.

In this regard, Bolman and Deal (2017, p. 48) indicate the assumptions of the structural frame as follows:

1) Organisations exist to achieve established goals and objectives and devise strategies to reach those goals.
2) Organisations increase efficiency and enhance performance through specialization and appropriate division of labour.
3) Suitable forms of coordination and control ensure that diverse efforts of individuals and units mesh.
4) Organisations work best when rationality prevails over personal agendas and extraneous pressures.
5) Effective structure fits an organisation's current circumstances (including its strategy, technology, workforce, and environment).
6) When performance suffers from structural flaws, the remedy is problem solving and restructuring.

Roberts (2004), cited in Bolman and Deal (2017), argues that the task of an organisation's manager is to define a strategy that moves the organisation to success. Furthermore, it is asserted that, in times of change, effective organisational leaders are expected to develop a clear agenda, including a meticulous strategy to implement the vision (Bolman & Gallos, 2011; Gallos & Bolman, 2021).

The structural leadership activities discussed above address the assumptions of the frame indicated by Bolman and Deal (2017). According to Bolman and Deal (2017), the structural frame's assumptions emphasise goals, roles, strategies, policies, technology, and the environment. Generally, the leaders' structural activities focus on developing and implementing policies, tasks, channels of communication, standards, systems, and procedures. This may help leaders focus on key organisational activities and prioritize resource allocations, resulting in enhanced effectiveness and efficiency.

6.2.2. The human resource leadership

This study indicated that the human resource frame relates to leadership initiatives that include capacity development and incentive programmes.

The goal of staff capacity development initiatives is to strengthen the institution's workforce. Initiatives included external hiring, talent hunting, and attracting skilled professionals. Capacity development training was provided, encompassing both short-term updating training and long-term upgrading training (master's and Ph.D. programmes). In addition, there was the strategy of utilising partnerships and awards for adjunct professors to mobilize human resources. The results

demonstrate how the university was able to raise the profile of its postgraduate employees (assistants, associates, and full professors) with the use of these human resource capacity development tactics. There are currently 415 assistant professors, 113 associate professors, and roughly 25 full professors at BDU, out of 1,871 academic staff members. As a result, the university is now in a secure position to manage postgraduate programmes and generate higher-quality research articles than it had previously.

This finding is corroborated by previous studies conducted by Ruan et al. (2024), Lutaaya (2024), Tan et al. (2015), Lyon et al. (2014), and Bikmoradi et al.(2008) using the Bolman and Deal framework, which revealed people development was among the human resource activities of leaders. Furthermore, empowerment and 'providing employees with the knowledge, skills, opportunity, autonomy, self-confidence, and resources to administer themselves, and be accountable for the change process' is also vital to make the change process smooth and effective (Gill, 2002, p. 308; Kotter, 1996). Similarly, Bolman and Deal (2017, p. 350) clarified that 'openness, caring, mutuality, listening, coaching, participation, and empowerment' are common themes among human resource theorists. They see 'the leader as a facilitator and catalyst who uses emotional intelligence and social skill to motivate and empower subordinates'. Instead of status or force, the leader's power stems from talent, caring, sensitivity, and service (p. 350).

Concerning the importance of the human resource perspective, Bolman and Deal (2017) noted that organisations need to find and retain people with the relevant knowledge, skills, and attitudes to perform the work. At the same time, people in organisations want to know how well will the organisation work for them. Bolman and Deal (2017) assert the significance of the human resources framework, stating that 'people's skills, attitudes, energy, and commitment are vital resources that can make or break an organisation' (pp.117–118) and 'strong companies know the kinds of people they want, and hire those who fit the mould' (p. 139). Particularly in times of change, people often tend to resist change because of a lack of knowledge of new methods brought by the management, or the undermining nature of the newly initiated practices on existing knowledge and skills. Bolman and Deal (2017, p. 272) assert that an organisation's 'Training, psychological support, and participation increase the likelihood that people will understand and feel comfortable with the new methods.'

Incentivizing staff as one of the human resource activities was recognised as a means of motivating and retaining existing staff. The various incentive platforms used include the provision of incentives for research outputs (publications), providing academic staff with resident houses, the provision of free transportation (from home to university and back home), free health services and free education services for staff and their spouses and children, free children's day-care services for female staff, and

a school transportation service for children at a minimum cost for both academic and administrative staff.

Moreover, the study revealed that efforts were made towards creating a favourable work environment through the provision of offices that are comfortable for doing research and advising students, internet access, water and electrical power services, smart classrooms, equipped labs, greening the campus, providing technology services (internet), securing resources for self-development, recreational areas such as sports fields and cafeteria, improving teacher–student ratios, and making the campus friendly and safe. Capacity-building opportunities for both academic and administrative staff and exercising good governance by involving staff members in decision-making processes were recognised as incentive mechanisms. This implies that on the path towards becoming a research university, there were various staff incentive strategies to help the university retain its staff, at least by preventing them from becoming dissatisfied even though it might be difficult to enable them to be satisfied.

This study's findings are in agreement with previous studies using the Bolman and Deal framework. In this regard, acknowledging individual achievements for excellent work is emphasised(Clark & Lindahl, 2014; Bikmoradi et al., 2008), participation of members in decision-making (Lyon et al., 2014; Clark & Lindahl, 2014; Flumerfelt & Banachowski, 2011), creating a cooperative climate, communication, and support (Lyon et al., 2014), showing sensitivity and concern for others' needs and feelings (Clark & Lindahl, 2014; Tan et al., 2015), truly valuing human relationships and working as a coach and mentor (Tan et al., 2015), developing mutual trust and respect (Bikmoradi et al., 2008), and motivating staff (Tull & Freeman, 2011) were among the human resource activities executed by leaders.

Scholars have also noted that during periods of organisational change, developing suitable incentive or compensation plans is crucial for boosting employee motivation, reducing resistance and attrition, and enhancing productivity. For instance, Wruck (2000, p. 21) claimed that 'well-designed compensation systems motivate individuals to overcome their resistance to change and to begin working productively toward a new objective'. In line with this, Bolman and Deal (2017, p. 156) stress the effectiveness of using a comprehensive strategy over a single strategy to improve human resource management. Bolman and Deal state that forward-thinking firms employ several 'high-involvement' tactics to improve human resource management. Some strategies strengthen the relationship between people and organisations by offering competitive pay, ensuring job security, promoting from within, providing employee training, and sharing the benefits of organisational success. Others, through participation, job enrichment, teaming, equality, and diversity, empower workers and give work more meaning. Bolman and Gallos (2021) identify the power of resources as a

reward/incentive in moving people towards 'resources [that] include money, training, staff support, organisational clearances, and whatever else individuals or groups need to work successfully' (p. 81).

The focus of the human resource framework is on how organisations serve their employees and are served by them. Bolman and Deal (2017, p. 16) argue that the human resource frame 'views an organisation as an extended family, made up of individuals with needs, feelings, prejudices, skills, and limitations.' The human resource framework places a strong emphasis on creating plans that will assist the company in developing and utilising its human resources, selecting and hiring qualified candidates, keeping hired staff members, investing in their professional growth and empowerment, and fostering diversity. In this regard, leaders' efforts for staff development and the provision of incentives may add to their efficiency in mobilizing employees toward the achievement of the research university vision.

6.2.3. The political leadership

Leadership in line with the political frame include mobilizing/securing resources via diversified sources, negotiation and persuasion, establishing research infrastructure, and research budget allocation.

Mobilizing and securing resources for research activities was seen as one political activity, through the diversification of revenue streams. As research universities are resource-intensive institutions, they expand sources of income. Common resource mobilization strategies used include the creation of strategic communication and partnerships with local institutions (both government organisations and non-governmental organisations), the establishment of research projects in collaboration with national and international organisations, and working in partnership with foreign institutions, opening market-oriented (need based) programmes and diversification of programmes (e.g., continuing and distance education) that can attract international students, and internal income generation (the production of goods, grand research projects, dairy production in the Agriculture College, the Poly-Peda Enterprise, and BiT trading). Therefore, the research university vision includes a multifaceted approach to resource mobilization to ensure its resilience, research excellence, and mission fulfilment.

In the area of partnerships, the study showed that BDU BDU has formed around 160 partnerships of various types and locations around the world. The collaborations involve organisations and higher education institutions from Africa, America, Asia, Europe, as well as Australia. Bahir Dar University has joined nine international associations, networks, alliances, and consortia. In 2019, BDU offered 19 joint programmes and hosted 324 international students. Additionally, the number of research

projects grew from 520 in 2007 to 930 in 2012. The creation of the partnerships permits access to staff, budget, and international students who contribute to the university's visibility.

Based on the results, it is clear that on the path towards the research university vision, access to both financial and human resources contributes to BDU's research activities through different platforms. These strategies are recognised as vital for the leaders in providing more room for plan implementation and enhancing effectiveness as well as minimizing staff competition over scarce resources.

Similar to this study, previous studies using Bolman and Deal's four-frame model have revealed that networking, political alliances, the allocation of scarce resources (Ruan et al., 2024; Lutaaya ,2024; Flumerfelt & Banachowski, 2011), funding, and internal and external coalition building (Lutaaya,2024; Lyon et al., 2014) were among the political activities of leaders. Since there are global trends to restrict government funding for research universities, universities should look for alternative sources of income (Calhoun, 2006). In this regard, Bolman and Deal (2021, p.185) state that 'politics is the realistic process of making decisions and allocating resources in a context of scarcity and divergent interests'. Furthermore, Bolman and Deal (2021, p.190) note that 'the e political frame does not blame politics on individual foibles such as selfishness, myopia, or incompetenc. Instead, it proposes that interdependence, divergent interests, scarcity, and power relations inevitably spawn political activity'. According to Bolman and Deal (2021), the central concepts in the political frame are power, conflict, competition, and politics that challenge leaders' ability to develop an agenda and create a power base.

Negotiation and persuasion of staff were identified as an important activity of leaders. The study found that leaders engage in negotiating with academic and administrative staff at times of misunderstanding or resistance to acting in the interests of the research university vision. Moreover, the leaders attempted to convince staff to engage in strategic spheres of the university such as research and publication. The results also confirm that the negotiation and persuasion practices helped the leaders to manage complaints raised and achieve a common understanding between leaders and staff about the vision and objectives, strategies, challenges faced, and possible intervention mechanisms.

Regardless of the practices mentioned thus far, the research revealed that there were no significant efforts to create a balance between the staff and the university's interests. As a result, the leaders understand the financial burden of the staff and compromise the university's interests over the staff's interests by tolerating poor performance by staff.

This result is supported by previous studies. For instance, diplomacy (Ruan et al., 2024), negotiation and bargaining (Lutaaya ,2024), influence, participative decision-making and governance process (Lyon et al., 2014), and fair and efficient management (Bikmoradi et al., 2008) were among the political activities engaged in by leaders. In this regard, Bolman and Deal (2021, p. 206) state: 'From a political perspective, goals, structure, and policies emerge from an ongoing flux of bargaining and negotiation among major interest groups.' Bolman and Deal (2021, p. 190) further explain that the political frame 'proposes that interdependence, divergent interests, scarcity, and power relations inevitably spawn political activity'.

Establishing new and improving existing research infrastructures was identified as an important leadership activity of the political frame. The initiatives taken to establish research infrastructures include the establishment of research centres that are well equipped with necessary input; and building standard classrooms, well-equipped laboratories, and libraries that enable staff to access adequate facilities to conduct quality research and teaching that are at the core of the research university vision. The research infrastructures indicated in this study are among the characteristics and features of a research university from the international, African, and Ethiopian perspectives (MoSHE, 2020; Altbach, 2013; Douglass, 2016; Salmi,2009; Bunting et al., 2017; Mukherjee & Wong, 2011).

In response to the low research performance, one intervention revealed in this study was increasing the budget for research projects. The low research budget was addressed by increasing the share of the research budget from the university's annual regular budget. After setting its research university vision and revising its organisational structure, on the path towards the research university vision it was decided to increase the budget allocation for research and community service projects. The findings indicate that the annual research budget increased from 62,768,954 ETB in 2015–16 to 75,000,000 ETB in 2023–24, and the community services budget increased from 7,991,900 ETB in 2015–16 to 234,450,000 ETB.in 2023–24. These efforts helped the university to increase its staff research engagement and publication outputs.

However, most of the leaders confirmed that the university's research budget share remains very low. This low research budget became a leadership challenge in terms of engaging the staff in research and publication. In this regard, many sources in the literature indicate that the availability of reliable budget sources for research remains an important aspect as well as a challenge of research universities worldwide and in Africa (Bunting et al., 2017; Douglass, 2016; BDU, 2014; Altbach, 2011; Altbach, 2013; NAS, 2012; Mukherjee & Wong, 2011; Salmi, 2009).

One of the political activities relevant to securing an external budget is external programme accreditation. In this regard, standardization and accreditation of programmes were initiated in order for BDU to be internationally competitive and visible. The path towards the research university vision included four internationally accredited programmes, for example, the maritime postgraduate diploma programme that will help BDU's graduates to be employed internationally, beyond Ethiopia. This is in line with the fact that research universities are internationally recognised institutions (Blanco-ramı & Berger, 2013; NAS, 2012; Salmi, 2009).

Political activities are vital for complex organisations such as HEIs. In this regard, Bolman, and Deal (2021, p.x), note that the political frame 'views organisations as arenas' where 'individuals and groups compete to achieve their parochial interests in a world of conflicting viewpoints, scarce resources, and struggles for power'. Bolman and Deal, (2021,p.401) explain that 'sccessful change requires an ability to frame issues politically, confronting conflict, building coalitions, and establishing arenas for negotiating differences into workable pacts'.

Likewise, Dong (2018) indicates that universities are considered highly political institutions. The political frame is an important leadership perspective in understanding organisations in terms of the competing interests of a company and its personnel. Creating a balance between an organisation's values and its people, providing enough resources, and supporting the process of interpersonal negotiation all play important roles. Overall, leaders have been engaged in diversifying research budget sources and minimizing conflict through negotiation, which will contribute to achieving the research university vision.

6.2.4. The symbolic leadership

The leadership activities that resort under the symbolic frame are considered unique initiatives toward the development of a research-oriented society. The results identified the development of a research culture, communicating the missions, vision, and values of the university, and staff research capacity development as symbolic leadership activities.

To address its low research performance as revealed by the BPR study, the first activity resorting under the symbolic frame revealed by all the documents and all the interviews was the development of a research culture. The platforms created for the development of a research culture include the formation of research teams in which the junior staff work with and learn from senior staff, hosting weekly research seminars (Friday seminars, Ph.D. students' seminars), symposia, and research workshops by staff and Ph.D. students, organising public lectures and international or continental conferences, providing publication incentives, providing budget for research projects, staff research capacity building, organising ceremonies, increasing a number of university journals, follow-up and

support for postgraduate students' research works, communication of postgraduate students' research outputs on different online media, and awards for young researchers and project winners.

Organising both national and international conferences is one platform for research culture development and was recognised by all the academic units and research centres. As a result, about 25 national and international conferences were hosted by Bahir Dar University in the 2022/2023 academic year, using both internal and external (sponsorship) budgets. This helped the university not only enhance its research culture but also secure and mobilize resources. As with the conferences, conducting various seminars (Friday seminars, Ph.D. students' seminars, and public lectures) is recognised as one mechanism for developing a research culture. The Friday seminars have been recognised by the university's legislation, which now stipulates that every academic unit and research centre should hold seminars every Friday afternoon, presented by its staff and postgraduate students. This platform helps the staff and students to learn from each other.

According to Tan et al. (2015), leaders engage in symbolic activities such as rituals, ceremonies, and storytelling to foster team spirit. Similarly, Dong (2018, p. 158) note that for a person to be 'an effective leader from the symbolic perspective, he or she needs to be good at constructing heroic narratives or stories to reveal the university culture and to encourage the followers to realize the university's goals'. According to Bolman and Deal, 2021, p. 23), 'the symbolic frame focuses on issues of meaning and faith. It puts ritual, ceremony, story, play, and culture at the heart of organisational life.'

Incentivizing staff to publish was also recognised as a key strategy to initiate a research culture among staff. The university has recognised staff publications by reputable journals and publishers as criteria for different benefit packages such as for promotion and housing competition, as well as directly paying money for publications. Bahir Dar University has paid publication incentives for its academic staff twice: 2,024,650 ETB in 2018 and 18,406,200 ETB in 2023. Though most acknowledged that paying incentives to staff for their publication was a feasible strategy, some leaders had reservations.

This finding is supported by previous research results which highlight the importance of providing individual recognition for outstanding performance (Clark & Lindahl, 2014; Bikmoradi et al., 2008), the participation of staff members in decision-making (Lyon et al., 2014; Clark & Lindahl, 2014; (Flu; Flumerfelt & Banachowski, 2011) creating a cooperative climate, communication, and support (Lyon et al., 2014), showing empathy and attentiveness to the needs and emotions of others (Clark & Lindahl, 2014; Tan et al., 2015), truly valuing human relationships and working as a coach and mentor (Tan et al., 2015), and developing mutual trust and respect (Bikmoradi et al., 2008), and

motivating staff (Tull & Freeman, 2011) were recognised as important activities of leaders. Moreover, it was claimed that a rich research culture can be developed by supporting faculty members in their research endeavours (Iqbal et al., 2018).

In higher education, promotion is often tied to research productivity (Berhanu, 2018; Ocholla, 2007; Dufera, 2004). In support of the contribution of publication incentives at BDU, the research publications have shown an increase. A study by Addisalem and Asrat (2023), based on an analysis of 22 years of BDU-affiliated publications from the Scopus dataset, revealed a prominent increase in research productivity since 2010, though performance differs across academic units. Medicine, agriculture, environmental science, social sciences, and engineering are the five academic units with the highest numbers of publications.

One symbolic leadership activity identified was communicating or sharing the vision, missions, and values of the university. All university-based documents include the vision statement, the core values, and the motto of the university. The findings also confirmed that the top-level leaders were communicating and sharing the research university vision with the university community and external stakeholders, including the Ministry of Education, via various platforms such as the Blue Book distribution, face-to-face discussions, publications (newsletters, bulletins, and printed calendars), and television. In this regard, acknowledgment was given to the former president for consistently promoting the vision with the motto 'Wisdom at the source of the Blue Nile' in his regular newspaper column. The president tried his level best to clarify the notion and nature of a research university, the importance of becoming a research university, the basic future emphasis of the university, and the expectations for each staff member.

The university has also organised social ceremonies to celebrate the university anniversary and staff promotion acknowledgment programmes. Moreover, image-building practices through the promotion of the positive aspects of the university and using different media were mentioned as one symbolic activity. In their image-building practices, leaders may serve as role models for other staff to work towards advocating the positive aspects of the university. However, it was acknowledged that, regardless of the efforts, the practice of communicating the vision had become weaker in recent times compared to previously, as a result of the civil war crisis and the COVID-19 pandemic.

In every organisation, the first step is to share the vision, mission, and core values of the organisation. This benefits the organisation by creating a common understanding of where it is, where it wants to go, why it wants to go there, and how it will go there, what major mission actions are expected of its staff, and what guiding principles should be followed to execute its mission and achieve its vision. Leaders in higher education must have a clear vision and set of values to effect a

change process. Values represent the unique core beliefs of an organisation and serve as important guiding principles of the institution's practices. In this regard, Bolman and Deal (2021, p. 255) state:

> Values characterize what an organisation stands for, qualities worthy of esteem or commitment. Unlike goals, values are intangible and define a unique distinguishing character. Values convey a sense of identity […] and help people feel special about what they do. […] The values that count are those an organisation lives, regardless of what it articulates in mission statements or formal documents.

This result is consistent with the findings of Ruan et al.(2024) who discovered that symbolic leadership activities included projecting an image of integrity and justice, holding a ceremony, and promoting the image of the university. Lutaaya (2024) also revealed that these leadership activities included being exemplary, role modelling, and using of ceremonies.

University slogans and mottos are important for identification and are regarded as fundamental marketing strategies. Shahnaz and Qadir (2020) found that 'universities provide direction and invoke a promise of change through their logos and mottos' (p. 48). Because of this, universities create catchy and realistic slogans and mottos to draw in potential students by employing classic advertising techniques (Shahnaz & Qadir, 2020; Barabas, 2017; Mafofo & Banda, 2014). Thus, slogans and mottoes highlight the university's distinctive position in the higher education sector.

Similarly, Thompson and McHugh (2009) argue that visions are best understood as an organisational feature, since they are developed and shared by groups of people rather than individual leaders. Individual leaders may nevertheless inspire staff to achieve great things by fostering a feeling of purpose and direction. Doten-Snitker et al. (2020) state that a 'shared vision is an important process for change projects, serving to amplify success, increase participation, and erode the divide between project leaders and constituents'. Doten-Snitker et al. (2020, p. 224) further state that a 'shared vision of higher education will be exclusively effective for change agents as it benefits them to integrate a variety of voices and viewpoints, building a more democratic, wider, and stronger base of support for change'.

Creating a shared vision helps advocates of transformation by securing widespread support and reducing resistance among stakeholders to change (Taylor, 2016; Michel et al., 2010; Kuhn, 2008; De Cremer & Tyler, 2005). Establishing a shared vision, is essential for effective leadership, as it significantly influences change processes by providing direction and motivating the entire system to pursue excellence (Lukas et al., 2007; Mccormack et al., 2007). Sharing the vision is one of Kotter's eight change management steps. Kotter (1996) emphasised that what a leader does with the vision once it is created will define his or her success. Because the leader's message will most likely face strong competition from other day-to-day communications within the organisation, she or he must

communicate it regularly and powerfully, and embed it in everything she or he does. Martin et al. (2014, p. 1) also indicated that 'having a vision helped leaders and their teams to become inspired and committed to a shared goal'.

Another recognised leadership activity within the symbolic frame is the staff research capacity development activities offered for academic staff and postgraduate students. In this regard, the university has been offering various short-term training programmes on data analysis software, research grant writing, proposal writing, preparing manuscripts for publication, and research software application, both at the university and academic unit level.

Moreover, research centres have also been recognised as an area of strengthening staff research capacity as they help the university to encourage staff to be more committed to research rather than only teaching. In addition, regular follow-up and support to postgraduate students, particularly Ph.D. students, as well as communication of their research outputs on different online media (university, website, Facebook page, etc.) have been recognised as one path to enhancing a research culture.

The above findings are supported by previous studies by Lyon et al. (2014), Bikmoradi et al. (2008), Tan et al. (2015), and Gill (2002) which have recognised capacity development and empowerment as crucial human resource activities of leaders. In addition, providing access to contemporary facilities, enhancing work abilities, and developing skills can significantly boost research output, thereby contributing to the development of a research culture (Fabre et al., 2021).

The development of a research culture goes beyond merely adding to the body of knowledge. Georghiou (2015) listed the different ways in which research impacts and creates value: 1) increasing the stock of useful knowledge, 2) training skilled people, 3) creating new scientific instrumentation and methodologies, and collaborating with users in the use of such facilities, and 4) collaborating with users in research projects and networks. The availability of academic staff with research capacity and research centres are among the primary conditions for a research university (Bunting et al., 2017; Altbach, 2014, 2013, 2009; Mallon, 2006). Judge and Blocker (2008) sassert that organisation's capacity for change extends beyond individual efforts, encompassing the collective capabilities of an organisational section to change. Moreover, Mladenova (2022) concludes that the development of capacity for change can supplement enthusiasm in supporting organisations to move across unpredictable situations.

The application of a symbolic frame is vital in the practice of research culture development. Bolman, and Deal (2021, p. 339) assert that 'the symbolic frame offers powerful insight into fundamental issues of meaning and belief, as well as possibilities for bonding people into a cohesive group with a

shared mission'. Bolman, and Deal (2021 p. 248) further specify that 'the symbolic frame focuses on how myth and symbols help humans make sense of the chaotic, ambiguous world in which they live. Meaning, belief, and faith are its central concerns. Meaning is not given to us; we create it.' Similarly, Altbach (2009), the MoSHE (2020), and BDU (2014) consider a research culture among the characteristics of a research university.

Similarly, Mohnot and Shaw (2017, p. 409) note that effective symbolic leaders 'stress the importance of working with others to craft a vision for their organisation. They lead by example, modelling the behaviour they expect, communicating and espousing the vision, and taking the necessary risks to achieve success.' Furthermore, Gallos and Bolman (2021, p. 13) state that 'leadership requires a moral campus and individual qualities like courage, passion, confidence, flexibility, resourcefulness, and creativity, the foundations of healthy leadership resolve and stamina'. Hence, in this study, the development of a research culture as a symbolic activity emphasises contributing to the achievement of the research university vision through organisational development by creating a family environment for staff in which to work and grow together through incentivizing, vision communication, and developing capacity.

6.3. Major Leadership Challenges Pertaining to the Research University Vision

While various leadership activities have been performed and significant improvements have been made on the path towards the research university vision, various challenges emerged. The results from both the document analysis and interviews with leaders indicate that the path towards the research university vision presented various challenges related to leaders, staff, resources, infrastructure, and environment. These challenges were classified as internal and external. The internal challenges were discussed under the structural, human resource, political, and symbolic frames of Bolman and Deal's model, while the external challenges were treated separately, as they fall outside the leadership orientations.

6.3.1. Challenges related to the structural frame

Different structural challenges were identified on the path towards the research university vision, regardless of the efforts initiated. These structural challenges include a lack of full autonomy, bureaucracy, a lack of adequate incentive packages, a lack of an appropriate staff (research) appraisal system, a lack of leaders' strategic focus, and weak governance and leadership.

One of the identified structural leadership challenges was a lack of full autonomy. The leaders revealed that autonomy-related challenges associated with the rigid university guidelines arose from the directions of the MoE, the CSC, and the MoFED, which are not conducive to supporting the

research university vision. The study revealed that the university leaders are not in a position to create a favourable organisational structure to accelerate the coordination and utilisation of its resources and incentivize its staff. Moreover, the MoE is deciding on an organisational structure for universities, developing curricula, and conducting admission (entrance) exams for postgraduate students at the ministerial level.

Due to the leaders' lack of autonomy and inability to create guidelines appropriate to the research university vision, the university is obliged to perform its financial and human resources administration using the MoE, the CSC, and the MoFED. This prevented the university from setting its own staff salary standards, recruiting talented external staff with better salaries, and effectively using its financial resources generated from internal revenue practices to incentivize its staff and implement its strategies. The lack of autonomy as a leadership challenge has contributed to the presence of other challenges such as bureaucracy and a lack of an adequate incentive system.

Bureaucracy as a structural challenge created three basic problems: a boring research finance administration, an unfavourable procurement process, and a long staff recruitment process. The first bureaucratic challenge witnessed by leaders was the existence of the rigid financial administration system the university follows (set by the MoFED), which creates problems for research activities.

Interviewees specifically mentioned that the financial settlement procedure is tedious, which causes many researchers to refrain from research project engagements; the senior staff are mostly not interested in it. There are also misunderstandings between the financial section staff and researchers, where the researchers believe that the finance staff are intentionally creating delays and the finance staff belief the researchers are committing fraud. As a result, the budget sometimes remains unused, and the research activities are delayed.

The second bureaucratic challenge identified was the unfavourable procurement process. The rules, which do not take the university's context into account, are the basis of the university's procurement process. The leaders claimed that, although the MoFED, as the main funder, has a mandate to set directions for the university, the rules, regulations, and guidelines are of a one-size-fits-all kind and not appropriate for university research activities. This procedure produces a serious bottleneck in the university's research facility procurement process. As a result of this rigid procedure, the university is suffering from a shortage of timely supplies of necessary resources at a fair price and of the right quality. This situation has already exposed the university to poor quality, exaggerated prices, and delayed supplies of purchased facilities.

The third bureaucratic challenge was related to the slow staff recruitment process. Although the majority of the leaders believe significant efforts have been made to attract talented external staff, the staff recruitment bureaucracy remains cumbersome. In this instance, leaders attested that, regardless of the university's talent-hunting policy direction to hunt minds outside, the human resources management section is very rigid and uncooperative in implementing the policy. Moreover, the recruitment and selection of new staff is a long process in which the call is announced in the mass media after all needs are collected from all academic units. A single academic unit does not have the mandate to announce calls independently. As a result, academic units have failed to get the necessary staff at the right time.

Congruent to this study's findings, Khanal et al. (2023, p.10) found that 'bureaucracy, and irrational structure' were among the structural challenges of HEIs. As HEIs are collegial in nature and their effectiveness relies on employees' commitment, there is a strong emphasis on bureaucracy and striving for rational decision-making may not be advisable (Beerkens & der Hoek, 2022; Vuori, 2011; Birnbaum, 2004; Shattock, 2003). In this regard, Bolman and Deal (2021, p.78) stress two points:

> Another critical structural dilemma is how to hold an organisation together without holding it back. If structure is too loose, people go astray, with little sense of what others are doing. But rigid structures stifle flexibility and encourage people to waste time trying to bolster or beat the system.

Moreover, aspiring to become a research university which is world class in nature, autonomy in respect of its finances and resources is vital for BDU. Douglass (2016) argues, regarding fiduciary autonomy, that an adequate level of independence for leaders is required to ensure the effective and efficient use of resources.

Bolman and Deal further note that if employees fail to be committed to their responsibilities, the organisation will suffer from poor performance. Nonetheless, sticking too closely to policies or procedures could also be dangerous for performance. Particularly, at a time of change, where there is high uncertainty, it is advisable to follow a flexible structure rather than a rigid one. Bolman and Deal (2017, p. 68) note that a 'stable environment rewards a simpler structure; [an] uncertain, turbulent environment requires a more complex, flexible structure.'

A lack of adequate incentive packages for staff was among the challenges identified. In this regard, regardless of the efforts made to incentivize staff through various platforms, the study disclosed that the university does not have an attractive salary and allowance package to attract talented external staff and motivate existing staff because of the lack of autonomy mentioned so far. The basic salary as well as the house allowance designed by the MoE is very low compared to other sectors. In

addition, staff experience is not considered for career advancement that will lead to salary and allowance improvement. This leads to a senior professor with 30 years of teaching experience and a junior professor with five years' experience earning the same salary and allowance. As a result, most staff members are engaged in external income-generating activities, compromising their university's activities, or even leaving the university and joining other organisations for better salaries and benefit packages.

As autonomy 'is integrally related to academic identity' (Henkel, 2005, p. 172), it is a core element of an academic institution. Higher education institutions are known for being loosely coupled and bottom heavy; any top-down directive results in staff resistance that creates obstacles for organisational leaders (Glassman, 1973). However, various scholars have acknowledged that autonomy, bureaucracy, and lack of adequate incentive packages are among the critical challenges of universities.

Altbach (2009, 2011) and NAS (2012) consider autonomy among the challenges of all research universities. This implies that without being autonomous in their operations, research universities will never be able to secure diversified and sustainable sources of resources. According to Drew (2010), lack of autonomy was identified as one of the major challenges of Australian higher education institutions. Furthermore, Drew states that the 'most significant challenges centred around the need for strategic leadership [are] flexibility, creativity, and change-capability' (p. 57). Khanal et al. (2023) asserts that 'lack of autonomy' was among the structural challenges in the case of Nepal Open University. Moreover, Woldegiyorgis (2013) rates exercising autonomy among the critical challenges of HEIs in Ethiopia.

This autonomy-related challenge is contrary to the explicit provision of explicit provisions of Higher Education Proclamation No. 1152/2019 (FDRE, 2019) regarding academic freedom and autonomy. The proclamation states that the university is granted 'the necessary autonomy in pursuit of its mission, to develop and implement relevant curricula and research programmes, and generate and utilise other incomes to support its mission', while ensuring 'lawfulness, efficiency and effectiveness, transparency, fairness, and accountability' (p. 11496). Creating incentive systems was thought to be one of the methods used by leaders to guarantee justice by methodically increasing the power of marginalized or vulnerable groups (Cox, 1994; Gallos & Ramsey, 1997; Morrison, 1992, in Bolman and Deal (2021).

Concerning staff recruitment, Gallos and Bolman (2021, p. 114) note that 'good hiring depends particularly on three key steps: (1) knowing what one is looking for, (2) ensuring a strong candidate pool, and (3) being thorough and systematic in assessing candidates.'

The lack of an appropriate staff research performance appraisal system was recognised as one of the structural leadership challenges. The only appraisal system the university has is a general academic staff appraisal based on the assessments of students, peers (colleagues), and department heads. However, the university has no clear appraisal system for the performance of research staff. In this regard, middle-level leaders stated that researchers' performance should be assessed with different standard criteria and in terms of different career levels, such as junior researcher, researcher, chief researcher, scientist, chief scientist, and the like. This implies that an HEI with a research university vision needs a clear research staff performance appraisal system that can develop research staff profiles.

According to Bolman and Deal (2021, p. 304), evaluating the 'performance of individuals, departments, or programmes is a major undertaking' for an organisation that 'plays a decisive role in helping organisations foster faith, belief, and confidence among constituents'. Moreover, Rothmann and Cooper (2008) indicate the benefits of performance appraisal to be 'to provide feedback about the strengths and weaknesses, distinguish between individuals to evaluate and maintain the human resource system of the organisation (e.g., training and development, allocate rewards effectively), and document the reasons for certain actions, like dismissing an employee' (pp. 191–192).

In a similar vein, Mani (2001) explains that by using performance appraisal properly, 'expectations can be made clear, employees can be managed more effectively, and participative management practices can be established. Besides, satisfaction with performance appraisal might lead to high morale, motivation, and productivity.' Moreover, Vlachopoulos (2021) identifies a 'lack of clarity in decision-making' among the challenges of 'efficient, inclusive change' management in higher education. In this regard, Bolman and Deal (2021, pp.56-57) state:

> … how to allocate work (differentiation) and how to coordinate diverse efforts after parcelling out responsibilities (integration). Even in a group as small and intimate as a family, it is important to settle issues concerning who does what, when the 'what' gets done, and how individual efforts mesh to ensure harmony. Every family will find an arrangement of roles and synchronization that works—or suffer the fallout.

The study also disclosed that a lack of strategic focus by leaders was among the leadership challenges. Lack of strategic focus refers to the inability of leaders to internalize the vision, mission, and core values, and reflect these in their day-to-day activities. According to the study, in their daily practices, the leaders are focusing on routine and crisis management activities rather than strategic issues that could contribute to realizing the research university vision. The leaders are engaged in handling routine tasks that could be managed by department heads or teachers instead of emphasising the strategically identified activities that contribute to the realization of the vision. In this regard, the study asserted that both the senate as well as the academic commissions' meetings deal with routine

issues such as student issues (teaching–learning, assessment, and attendance), food (students' cafeteria), campus security, and the like. Moreover, some of the leaders disclosed that they are not devoted enough to regularly communicate the university's vision and strategies, perform the planned activities effectively, or display the core values in their daily activities.

Being strategically focused is about the utilisation of strategic approaches, strategic processes, and strategic leadership Davies et al. (2001). Salmi (2009) explained that leaders who are competent to clearly articulate strategic plans that integrate the vision into specific programmes and goals are essential inputs for re-establishing research universities. The study's results are consistent with those of Dong's (2018) study on merged HEIs in China. According to Dong, weakness in setting relevant goals and implementing both strategies and implementation plans are among the structural challenges. According to Drew (2010), although it is among the significant challenges of higher education, strategic leadership is key for 'responding to competing tensions and remaining relevant; maintaining academic quality; and managing fiscal and people resources.'

Organisations today operate in a highly complex, competitive, dynamic, and difficult environment that necessitates not only strategic leadership but also resource alignment to effectively compete and achieve strategic goals (Hitt et al., 2011). Hitt et al. (2011) assert that '[i]n essence, the intent of strategic management is to develop and successfully exploit competitive advantages' (p. 69). .Similarly, Rowe (2001) emphasises that an organisation's ability to maintain a competitive advantage is strongly impacted by ineffective strategic leadership.

The failure to implement the existing stated legislation, guidelines, and rules was identified as the other structural challenge. Despite the efforts made to produce various rules, leaders fail to implement the existing legislation and guidelines, including postdoctoral programme guidelines, intellectual property rights guidelines, and some senate legislative articles. In addition, it was a challenge applies the established norms and principles. Failure to apply the rules may harm the university's performance in terms of staff rotation, research staff concentration, and staff research capacity, according to the leaders. This means that leaders are not only challenged by the lack of autonomy in establishing vision-appropriate rules and guidelines for BDU, but they have also failed to implement the existing rules and guidelines. Congruent with this study's result, Dong (2018) identifies weaknesses in the failure to set relevant goals and the failure to implement both strategic and implementation plans as structural challenges.

One of the structural challenges revealed by the document analysis was governance and leadership, which play a critical decision-making role in setting and communicating a vision, creating a favourable and stable organisational structure, developing valid rules and guidelines, and ensuring

effectiveness, efficiency, and equity among staff and the different sections and departments of the university. Duderstadt and Womack (2014) and Storberg-Walker and Torraco (2004) stress the significance of higher education leadership and governance structures for shaping the change process through the identification and building of agreement on the purposes. Bolman and Deal (2021) focuses on the role of multiform leadership orientation, and assert that using multiple frames may help leaders to perceive the same issue from different perspectives or points of view. According to Bolman and Deal, leaders may find it helpful to use many frames in order to observe the same object from various angles.

In general, the primary leadership challenges related to the path to the research university vision, which included a lack of autonomy, bureaucracy, and a lack of strategic focus. These structural issues, if not addressed early on, have the potential to have an impact on leaders' human resource, political, and symbolic practices.

6.3.2. Challenges related to the human resource frame

Irrespective of the different leadership activities performed, the study revealed leadership challenges pertaining to human resources. The challenges identified include the research capacity limitations of staff and PhD students, low motivation, low commitment and strong resistance, staff turnover, and lack of research staff for research centres.

Concerning limited staff capacity, it was mentioned that, on the one hand, the number of Ph.D. holders is still below the expected level and, on the other hand, their research capacity is not at the expected level. The documents revealed that despite the efforts to enhance the staff's research capacity and the improvements achieved in the staff profile, the university has a low number of professors and academic staff with Ph.D. degrees. Moreover, the leaders reflected that, although there were improvements in the staff academic profiles and engagement in research practices, many academic staff and Ph.D. students lack the desired competence to write and win grants, mobilize resources, conduct research that benefits the community, and produce publications at the expected level. As research practice is the central element of a research university, this limited capacity of staff and Ph.D. students to involve in research activities may hinder the pace of the university's journey towards its research university vision.

This study supports the findings of other higher education studies by Khanal et al. (2023) and Dong (2018) who revealed 'limited capability of human resources to develop departmental programmes, technologically unfamiliar faculty, and traditional ways of recruitment'(p. 11) at Nepal Open University and 'failure in hiring the right people and team work' in the case of the Merged Higher

Education Institutions in China, respectively. In a similar vein, Drew (2010) found that limited staff capacity was a major challenge in higher education in an Australian university. According to Bolman and Deal (2021), people's abilities, dispositions, vigour, and dedication are essential assets that have the power to build or destroy an organisation. The challenges of limited scholarly research can be attributed to weak partnerships between practitioners and academics, poor linkages between university research and the nation's development agenda, the descriptive nature of most research (Moahi, 2007), and limited staff capacity (Mutula, 2009; Moshtari & Safarpour, 2024) in African universities.

Low motivation, low commitment, and resistance were recognised among the challenges facing leaders. The leaders disclosed that many staff members are not performing their research, teaching, and community service roles to the expected level. As explicitly stated in the university's research and community service guideline (BDU, 2019), every teaching staff member is expected to conduct research and publish one research article every two years, while a research staff member is expected to publish at least one research article every year. However, the leaders witnessed that some staff member are not open to embracing the vision or implementing the university strategies of engaging in research grant writing, group research work, publication, national and international conferences, Friday seminar presentations, follow-up and support for students' progress (particularly advising postgraduate students), and providing community services.

There is a low concern among staff for quality: students who devoted much effort to their work and those who copied others' work received the same results, or at times those who had copied even received better marks. This low motivation, low commitment, and strong resistance were mainly attributed to staff's low standard of living due to the low salary packages. This low interest, low motivation, low commitment, and strong resistance led staff to neglect their regular university tasks and engage in private income-generating activities outside the university, such as consultancy, supermarkets, and business dealing (brokering), and eroded their academic dialogue culture and intention to continue their Ph.D. education. This suggests that the change process may be delayed or perhaps fail as a result of resistance to change.

Similar to this study, Dong (2018, p. 147) found that 'lack of open communication, inadequate empowerment, support, coaching, and care' were among the human resource challenges. In HEIs, there is a strong tendency for resistance to change, particularly in the context of mergers (Chandler, 2013), and resistance to change is a crucial subject in the study of change management (Pardo Del Val & Martínez Fuentes, 2003). Staff resistance may be caused by various reasons such as ' inadequate communication, a lack of incentives and support, and inhumane changes', or may be because of 'a goal conflict between the employer and the labour' (Rathi & Ghanghas, 2023).

Researchers categorize resistance to change into two categories: 'active resistance and passive resistance' (Rosenberg & Mosca, 2011; Self & Schraeder, 2009). Whereas active resistance entails acts such as hampering the adoption of change by reducing effort for work(van Dijk & van Dick, 2009), workers participate in passive resistance by being reluctant to assist in implementing reform and by raising the goals of the change effort(Eryilmaz & Eryilmaz, 2015; Self & Schraeder, 2009; Herscovitch & Meyer, 2002). Moreover, change resistance can raise costs and cause delays or slowdowns that ultimately result in the failure of the change strategy (Furxhi, 2021; Bryant, 2006).

In addition to the lack of interest, low motivation, low commitment, and strong resistance, staff turnover was identified as a leadership challenge. The leaders witnessed that the salary and allowance packages of the university are very low compared to other organisations that could recruit university staff. Many staff members left the university in search of better salaries and incentives from other organisations, resulting in the university losing senior staff and hindering the university's efforts to improve its research staff, who can contribute to the realization of its research university vision.

According to Takawira et al. (2014), staff turnover at HEIs negatively affects the human capital within institutions, which leads to a disruption of productivity. A study by Taye and Getnet (2020) in the context of Mada Walabu University, Bale Robe, Ethiopia, revealed that employee turnover substantially decreases organisational effectiveness. According to Kacmar et al.(2006), turnover not only results in higher costs for hiring and training replacements but also decreases productivity as a result of more mistakes and less efficiency of the new workers due to insufficient training, experience, and local knowledge. This is also evident at the CEO level: CEOs who change companies typically perform at a lower level than those who are appointed from within (Griffin et al., 2014; Elson & Ferrere, 2012).

One leadership challenge related to human resources identified by this study is the lack of permanent research staff for research centres. The shortage of permanent research staff at research centres and institutions was identified as a significant challenge by the leaders. The path towards the research university vision includes developing the research centres to conduct research and mobilize resources through research grant writing by hosting full-time researchers. The absence of research staff may harm the university's progress towards its research university vision.

According to Stahler and Tash (1994), a common characteristic of research universities is that 'research centres and institutes have as their primary mission the conduct of research' (p. 541). Stahler and Tash (1994, p. 552) further explain that 'research centres are a necessary organisational structure for bolstering a university's sponsored research programme and for encouraging interdisciplinary collaboration'. In line with the significance of research centres for collaboration,

Boardman and Corley (2008, p. 900) also specify that 'perhaps the singular feature that all university research centres, broadly defined, have in common is the intention to foster collaboration among researchers'. Altbach (2014, p. 1306) also explains that 'research centres are established to produce research and analysis and to train professionals for university management'. Furthermore, Mallon (2006) found that faculty recruitment was among the benefits of research centres.

The basic challenge challenge associated with the human resource frame lies in effectively integratingan organisation's needs and individual needs. Leaders found it difficult to get the jobs done well while employees are feeling positive and satisfied with their jobs and their group. In this regard, Bolman and Deal (2021, p.17) commented:

> When basic needs for security and trust are unfulfilled, people withdraw from an organisation, join unions, go on strike, sabotage, or quit. Psychologically healthy organisations provide adequate wages and benefits and make sure employees have the skills, support, and resources to do their jobs.

Bolman and Deal (2021, p.136) also indicated that 'high-performing companies do a better job of understanding and responding to the needs of both employees and customers. As a result, they attract better people who are motivated to do a superior job.' This implies that employers are expected to invest their resources to attract talented external staff and develop existing ones. In general, staff fringe benefits are insufficient to increase employees' motivation and commitment.

6.3.3. Challenges related to the political frame

Regardless of the political frame-related activities performed, the leaders faced challenges in their efforts toward the research university vision. These challenges include a low research budget, weak university stakeholder communication and partnerships, infrastructure-related problems, and a lack of staff-sensitive leadership.

One of the significant political challenges identified was the low research budget allocated by the university. Although leadership activities were covered by the regular annual research budget allocation, the budget remains inadequate for the needs of the academic units and research centres. The budget allocated for research activities is insufficient given the university's aspiration to achieve a research university vision. The major share of the university's annual budget goes to students' services, teaching–learning, and staff salaries, rather than to research activities. In addition, it was verified that the maximum research budget share represents only 4% of the overall university budget. The leaders witnessed that most of the academic staff do not like to conduct research using the university budget and prefer external research project funds. This may severely impede the research

productivity of the university and, in turn, the realization of its research university vision. Congruent with this finding, a research budget is among the key requirements of research universities.

Supporting the present study's findings, the study by Khanal et al. (2023) revealed that a shortage of funds was among the key political challenges at Nepal Open University. Moreover, scholars disclosed that a shortage of funding was among the major challenges of universities in general and research universities in particular (Derebssa, 2004; Altbach, 2009, 2011; Research Universities Futures Consortium, 2012; NAS, 2012; Kenno & Sainty, 2017). In addition, Altbach (2014, p. 1306) states that 'higher education requires significant expenditure to support mass access on the one hand and research capacity on the other'.

The other political challenge identified was weak university stakeholder communication and partnerships. Although there is an established a system of communication (internal and external), as well as a variety of communication channels, communication has yet to reach the stage where all these opportunities are iteratively employed to promote the university's actual situation. In this regard, the study confirmed that the creation of partnerships is limited to some academic units, while most of the academic units do not have such reliable partnerships. Moreover, the communication among internal and external stakeholders is weak, as is the networking in partnerships.

A study by Dong (2018) that supports the findings of this study also found that the main political challenges were lack of strong external networking and coalitions, and the inability to set agendas. In line with this, numerous studies on research universities attest to the fact that networking and partnerships are one path to securing resources for universities but remains challenging (Altbach, 2009, 2011; Research Universities Futures Consortium, 2012; NAS, 2012; Kenno & Sainty, 2017).

Securing power that enables an organisation to mobilize sufficient resources from different stakeholders was found to be among the political challenges during a period of change.Bolman, and Deal, 2021, p. 377-378) explain:

> Political leaders map the political terrain by thinking carefully about the key players, their interests, and their power, asking: Whose support do I need? How do I go about getting it? Who are my opponents? How much power do they have? What can I do to reduce or overcome their opposition?

Similarly, Gallos and Bolman (2021, p. 89) state that 'a central challenge in making change stick is mobilizing enough power to move your initiative forward'.

Parallel to the low research budget and the weak university stakeholder communication and partnerships, infrastructure-related problems were identified as one of the leadership challenges.

Despite the efforts made to provide infrastructures, progress towards the research university vision encountered problems with research infrastructures. However, the severity of this problem varies from campus to campus. Some of the problems include 'lab equipment and supplies, greenhouses, workshops, maintenance and troubleshooting personnel, experienced lab technicians, fast internet connections', and 'journal subscriptions'. Moreover, the lack of adequate offices for staff, particularly on the main campus, power and water services (on the Gish Abay campus), research infrastructure (in some academic units on the main campus), and a shortage of full-fledged labs at the university level were among the problems identified.

This finding is supported by Khanal et al. (2023) who found that a shortage of physical infrastructure was one of the basic political challenges. Furthermore, the finding is in agreement with the work of various scholars who have stated that a research university's primary mission is doing research which requires various infrastructures to enable the staff to conduct research comfortably (Altbach, 2013; Douglass, 2016; Salmi, 2009; Bunting et al., 2017; Mukherjee & Wong, 2011; MoSHE, 2020). A study by Derebssa (2004) using the case of Addis Ababa University revealed that lack of a research culture, funding of research, limited personnel capacity to conduct research, teachers' workload, and poor infrastructure and equipment were reasons for poor publication records.

One of the political leadership challenges disclosed was the lack of staff-sensitive leadership, which was explained in terms of leaders' failure to be cognizant of staff's poor standard of living due to poor salaries. While the staff are expected to engage in problem-solving research activities, they are leading a poor quality of life resulting from their poor salaries. Unless they petition the ministry officials for better staff salaries and allowance packages, the university will never get the quality staff it needs to become a research university. This calls for the leaders to be empathetic and take risks to solve the staff problem.

On this issue, scholars have discussed that effective leaders are expected to view the university function from multiple viewpoints, including political and administrative perspectives, to successfully implement change (Shattock, 2010; Yukl, 2013). According to Gumus et al. (2018), especially change-oriented leaders are engaged in driving change by developing a vision and encouraging creative thinking and risk-taking among their group. Mahsud et al.(2010) assert that empathy increases a sense of safety and job satisfaction, which encourage people to attempt creative approaches to complete their everyday tasks. Moreover, a study by Kock et al.(2019) found that empathetic leadership influences followers' performance in terms of job satisfaction and innovation.

Overall, on its path to the achieving the research university vision, BDU has encountered political challenges, including a low research budget, weak university stakeholder communication and partnerships, and a lack of staff-sensitive leadership.

6.3.4. Challenges related to the symbolic frame

Irrespective of the efforts that leaders have been made, two symbolic leadership challenges were identified: a poor research culture and weak governance and leadership. Various symbolic activities are performed by leaders to enhance a culture of research and academic dialogue at BDU. However, a poor research culture continues to be among the challenges leaders face. There is a lack of consistent participation in research events, including seminars, conferences, and symposia. The staff attach more value to money than to research; they engage in research activities for the sake of the money they get rather than the scientific experience it would bring them. Even the daily conversations of staff are about business rather than academic and research issues. In addition, many staff do not publish articles, present their work at conferences and seminars, or engage in project grant writing. The leaders also confirmed that although the number of publications is increasing, the number of staff who are publishing remains low. The poor research culture is attributed to poor salary and incentive packages and limited capacity.

The findings of this research are congruent with those of Khanal et al. (2023), who mentioned low trust in quality, delayed logistical processes, poor work environments, and traditional staff and faculty recruitment processes as symbolic challenges. Research practices, especially publication in academic journals, is crucial for staff promotion (Berhanu, 2018; Ocholla, 2013; Derebssa, 2004). Consistent with this finding, Antia et al., 2019, p.10) indicate that 'a weak research culture, lack of research management strategy, inadequate facilities and poor funding' are the key variables that adversely impact research. Derebssa (2004), in his study on Addis Ababa University, found that a 'poor research culture' was among the reasons behind universities' poor publication records. Likewise, a study by Sewagegn and Diale (2021, p. 27), focusing on an Ethiopian university, disclosed that results indicate that, 'despite the benefits of publishing, not all academics in the university are publishing in local and international journals due to several challenges'. Moreover, Salmi et al. (2017), in a World Bank study, indicated that the quality and impact of research publications by Ethiopian universities remain very low.

Emphasising another symbolic aspect, Dong (2018) states that, in the NewU case, leaders 'did not have very clear definitions of their mission, values, and vision. [There is a] lack of symbolic activities, such as rituals, ceremonies, heroes, stories, etc. which influence the creation of new meanings, beliefs, and faith in the new university' (p. 123).

Yet another symbolic leadership challenge identified is weak governance and leadership, which was explained in terms of a 'lack of inspiring and shared vision, mission, and values within the university community' (BDU., 2020, p.31) compared to previous efforts. The study revealed that sharing the vision, missions, and values was mostly done by a top-level leader, the previous president, and that this practice was significant at the beginning of the change initiative but had weakened over time. This implies that the vision, missions, and values should be shared not only by the top-level leaders but also by middle-level and lower-level leaders throughout the change process.

The study supports the study by Dong (2018), who commented, on the issue of symbolic challenges experienced by leaders, that 'they did not have very clear definitions of their mission, values, and vision. [There is a] lack of symbolic activities, such as rituals, ceremonies, heroes, stories, etc. which influence the creation of new meanings, beliefs, and faith in the new university' (p. 123). A study by Doten-Snitker et al. (2020) also found that while a shared vision emanates mainly from top-level leaders, it is also strongly rooted within individual employees. Likewise, Bui et al. (2023) and Bui and Baruch (2012) indicated that sharing a university's vision can be done in three ways: top-down, bottom-up, and across schools/departments; in the latter case, each member would see her-/himself as a part of the vision. Moreover, it is vital to involve stakeholders throughout all stages of the change process to save time and effort and prevent delays (Doten-Snitker et al., 2020; Bruhn et al., 2001).

The internal challenges indicate that leaders' efforts were viewed in terms of the four frames they utilised. Therefore, their reflections on challenges are closely linked to their actual practices. This calls for their critical review of their progress toward the research university vision and the implementation of appropriate remedies.

6.3.5. External Challenges

In addition to the internal challenges, presented under the four frames of Bolman and Deal, various external challenges negatively affect the university's journey toward its research university vision. The external challenges are hindering the university's practices and activities, as viewed through the four frames. The external challenges revealed include insufficient government attention to establishing research universities, limited autonomy, instability due to inflation and socio-political situations, high graduate unemployment rates, lack of enthusiasm and ability among local businesses to establish partnerships, competition for scarce funds, and an inadequate supply of foreign currency (BDU, 2020, pp. 35–36).

The document analysis identified the external challenge of insufficient government attention to establishing research universities. In this regard, it was found that BDU's research university vision has recently received the attention of the Ministry of Education. Although the university initiated its research vision as early as 2010, following the BPR study, it was only in 2020 that the MoSHE produced its differentiation study results, indicating that universities in Ethiopia are categorized into three types, namely, research universities, universities of applied sciences, and comprehensive universities. This lack of attention became a challenge on the path towards the research university vision in terms of the university securing autonomy and receiving an increased annual budget from the government compared to other universities. In this to this, Brunsson (2014,p.142) notes the following:

> As long as the decision-making process adheres to the existing laws and acts passed by the government/parliament, change becomes especially challenging. Decision processes that comply with the rules and thus defy rational decision-making tend to create one or several types of uncertainty, which in turn reduces organisational ability to achieve collective, coordinated action.

In this regard, Altbach (2013,p.328) asserts that 'all successful research universities are part of a differentiated academic system where they stand at the top of an academic hierarchy and receive appropriate support for their mission.'

Another external challenge identified by the document analysis is limited autonomy, although this was considered an internal challenge by the leaders. The document analysis indicated that most of BDU's rules and regulations are derived from ministry-level offices and are the same as those set for all public sectors. These top-down and rigid government policies, rules, and regulations create challenges for BDU in terms of determining its structure, financial administration system, staff salary and incentive packages, staff recruitment and promotion criteria, and the like. This was also noted by Woldegiyorgis (2013), who lists exercising autonomy among the critical challenges faced by HEIs in Ethiopia.

Crisis and instability, as well as inflation, were identified as external challenges by both the document analysis and the interviewed leaders. The leaders stated that the crises and instability caused by the COVID-19 pandemic and the Ethiopian civil wars were among the leadership challenges they faced. The crises and instability created challenges for the university's activities in terms of budget reduction, decrease in sponsorships, frequent changes in the schedule of the academic calendar, and research participation of staff. The crises forced the university's leaders to engage in crisis management rather than focusing on the university's strategic issues. The crises also exposed the university to unstable schedules and low-budget assignments. The crises adversely affected staff engagement in research activities and decreased the number of sponsoring organisations. Generally,

the situation of crisis and instability threatened the livelihoods of staff, as well as their research activities. Gigliotti (2022) explains that the moral aim of higher education, the diversity of stakeholders, and the wide spectrum of potential crisis scenarios make crisis leadership an increasingly relevant and important topic for scholars and practitioners. Latta and Myers (2005) also state that the national economic crisis caused severe budget cuts for the university that affected the land-grant university's reform programmes.

An equally important external leadership challenge is inflation. Even though the university's research budget increases from year to year, the purchasing capacity of these funds remains weak because of the inflation problem. The price of research inputs/facilities is increasing at an alarming rate. Moreover, inflation has severely affected the budget share of the university from the government, as well as the staff's standard of living and the procurement efficiency of the university. The problem of inflation was also linked to the shortage of foreign currency, which has contributed to the low purchasing power of the local currency. The shortage of foreign currency is a major challenge for the university and affects staff exchanges as well as international procurement processes. Tessema and Abebe (2011) state that, although public universities in Ethiopia have adjusted salaries in recent years, the impact of inflation has been so severe that staff are left struggling to make ends meet on their inadequate pay.

The document analysis also identified the high graduate unemployment rates as an external challenge. The university graduates' unemployment, resulting from limited job markets, affected the motivation of students as well as staff's commitment to quality teaching and giving research advice. The high percentage of graduates' unemployment requires the university to reconsider the relevance of its programmes as well as its capacity to equip students with knowledge, skills, and attitudes relevant to the job market.

Graduate unemployment is a common problem which has been attributed to different reasons. For instance, Osmani et al. (2019) attribute it to the imbalance between the number of students who graduate from universities and the available positions for them in the labour market, Bamwesiga (2013) and Beaumont et al. (2016) rather attribute graduate unemployment to graduates' 'lack of relevant skills and knowledge' required by employers. According to Yorke (2005), graduate unemployment is linked to weak economic growth and the inability to create adequate job opportunities that could absorb graduates.

One external leadership challenge identified is the lack of interest and capacity in terms of local business partnerships. Because of the instability in the country, many local business sectors lack the motivation to create partnerships with BDU. This negatively affects the university's ability to

mobilize resources for research and organise conferences. According to Storberg-Walker and Torraco (2004), ' a key challenge for leaders responsible for change in higher education is managing the complex roles and relationships between the university and its diverse constituencies, particularly when these relationships are changing rapidly' (pp. 812–813).

Another external challenge identified in respect of BDU was the competition for limited resources. As the primary budget source for public universities is the government, there is strong competition among universities for limited public funds. In support of this, Altbach (2004) comments that, even though research colleges can raise large amounts of funds through diverse means, no source replaces the continuous and significant public funding. Therefore, a world-class university cannot be built or maintained without public funding. The problem arises from the practice of using similar criteria to allocate budgets for all universities, irrespective of their visions. This disadvantages BDU because of its higher resource demand as a result of its research university vision. Because of the significant environmental influences connected to technology, competitiveness, and the workplace and workforce, change in higher education remains important (Storberg-Walker & Torraco, 2004; Kezar & Eckel, 2000; Welsh & Metcalf, 2003; Kemelgor et al., 2000).

6.4. Leadership Orientations

This study explored leadership orientations using Bolman and Deal (2021)four-frame model in the context of BDU's research university vision. The study revealed that the interviewed BDU leaders' perceptions mirror the Bolman and Deal's (2021) four frames in terms of the primary activities performed and/or challenges encountered (refer to Appendix 7) in their journey path towards the research university vision. Therefore, these leaders have a multiframe leadership orientation.

This study's findings are supported by the studies of various scholars such as (Ruan et al., 2024 ; Lutaaya, 2024; Khanal et al., 2023; Zare, 2023; Dong, 2018; Clark & Lindahl, 2014; Lyon et al., 2014; Hodgman, 2014; Monahan & Shah, 2011; Sasnett & Ross, 2007; Mosser & Walls, 2002; Thompson, 2000) who found that leaders utilise the four frames of Bolman and Deal. Similarly, studies by Flumerfelt and Banachowski (2011), Tan et al. (2015), Tull and Freeman (2011), and Joo (2014) have indicated that leaders follow multiframe leadership using only three of the four frames. In the findings of Flumerfelt and Banachowski (2011), the symbolic frame is missing, while in the findings of Tan et al.(2015), and Tull and Freeman (2011), the political frame is missing.

By contrast, this study is different from the studies by Al Khaja and Dammak (2021), Boff (2015), Mohnot and Shaw (2017), and Wilson and Sy (2021), which revealed that leaders did not uyilise multiframe leadership but utilised only one or two of the frames. However, studies by

Garipağaoğlu(2016) and Vuori (2011) revealed that the four frames were utilised at the level of the vice dean's office and the programme level, respectively. However, at the level of individual leaders, it was found that leaders only utilised two frames. For instance, Vuori (2011) found that all programme directors used the structural and human resource frames of leadership. In the case of Garipağaoğlu(2016) study, deans and institute directors employed political and human resource frames, whereas vice deans and assistant directors utilised structural and human resource frames.

This result implies that their multiframe orientation could help university leaders to improve their effectiveness. Previous studies also confirm that the capacity to employ different frames is linked to managers and leaders' enhanced effectiveness (Bensimon, 1989, 1990; Birnbaum, 1992; Bolman & Deal, 1991, 1992a, 1992b; Heimovics et al., 1993, 1995; Wimperberg, 1988). In their study of school principals in Florida and Singapore, Bolman and Deal (1992a) found that all four frames were linked to the effectiveness of a manager or leader. However, another frame-related study by Bolman and Deal (1991, p. 509) found that 'managerial effectiveness is related to an emphasis on rationality and organisational structure'. Similarly, Bolman and Deal (2013) indicated that, whereas managerial performance is linked to the structural frame, an individual's capacity as a leader is mostly associated with the political and symbolic frames.

Furthermore, Bolman and Deal (2013) witnessed the importance of reframing in times of confusion. They stated that 'when the world seems hopelessly confusing and nothing is working, reframing is a powerful tool for gaining clarity; regaining balance, generating new options, and finding strategies that make a difference' (p. 35). Likewise, Thompson (2000) found that irrespective of the leadership dimension, leaders who employ three or four frames are more successful as leaders. In her research on college presidents, Bensimon (1989, 1990) discovered that those who used multiple frames were thought to be more successful than those who tended to utilise only one.

Bolman and Deal (2021)argue that 'a multi-frame approach made organisations both effective and successful' (p. 326); '[m]ulti-frame looks at organisations as multiple realities and gives guidelines for aligning frames with situations' (p. xi). According to Bolman and Deal (2021, p. 356), 'a multi-frame view provides a more comprehensive map of a complex and varied terrain'. Moreover, Bolman and Deal (2021, 445) state that, 'leaders fail when they take too narrow a view. Unless they can think flexibly and see organisations from multiple angles, they will be unable to deal with the full range of issues they inevitably encounter'. Likewise, Freeman and Wilmes (2009) claim that properly employing all four frames of perspective while implementing large or small organisational changes makes the change process successful and sustainable.

7. CONCLUSION AND RECOMMENDARTIONS

This final chapter focuses on the conclusions and recommendations derived from the study. Specific topics discussed include the conclusions drawn, the implications and contribution of the study, recommendations put forward, the limitations of the study, and suggestions for further research.

7.1. Conclusions

In the case university in Ethiopia, conceptualization of a research university mirrors that of institutions in Europe and America, where there are more abundant resources and extensive research, teaching experiences as well as leadership. Therefore, it is crucial to ensure that the vision for the research university and path towards it are feasible and align with the country's sociocultural, political, and economic context, as well as the institution's financial resources, leadership, and personnel expertise and devotion.

The vision of a research university not only guides the university in achieving excellence in research and education but also ensures it plays a significant role in addressing societal challenges such as illiteracy, unemployment, conflict, and poverty, and contributes to the broader community by enhancing educational, health, and job opportunities and qualities.

Bolman and Deal's (2021) four frames offer higher education leaders multiple lenses for conceptualizing a research university, enhancing the path towards it, and helping them recognize challenges related to the vision. The model can help higher education leaders in understanding and interpreting a research university through various leadership dimensions, necessitating a multifaceted approach. Through the structural frame leadership can clarify the strategic issues of a research university. The human resource frame can assist leadership to identify essential talents for a research university. The political frame can support leadership to address the resource-intensive nature of a research universities, including resource mobilization, distribution, and governance. Under the symbolic frame leadership can highlight the importance of research culture, vision communication, and role modeling for a research university.

To move towards the path to the vision of a research university, higher education leadership needs to focus on different leadership dimensions that require leaders to adopt a multifaceted approach. Leadership under the structural frame can address rationality, coordination, effectiveness, and efficiency at each organisational level by establishing clear guidelines, refining the organisational

structure, and identifying strategic themes that support the vision of a research university. Leadership under the human resource frame can orient to improve staff qualifications, retain talent, and reduce turnover, through short-term and long-term training, and offering incentives.

Leadership adopting political frame can deal with the efficient and fair use of existing resources, secure additional research funding from partners, maintain staff harmony, minimize conflicts, and develop academic programs, equitable budget allocation, and program accreditation. Leadership utilizing the symbolic frame can steer towards creating opportunities for staff to share academic knowledge and skills, and disseminate research by effectively communicating the university's vision to both internal and external stakeholders.

Bolman and Deal's (2021) four frames can help institutional leaders to continuously assess their initiatives from more nuanced perspectives. A multiframe approach provides a more inclusive picture of a complicated and diverse higher education environment. The structural frame can assist in identifying factors that obstruct the establishment of a rational and coordinated system, which can be essential for progressing towards the research university vision.

The human resource frame can help leaders in identifying and addressing issues that impede the practice of attracting and retaining talented staff who can support the journey towards achieving the research university vision. The political frame is vital for tackling challenges related to resource mobilization, distribution, communication, decision-making, and staff relationships. The symbolic frame can assist leaders in examining factors that hinder vision sharing and the development of a research culture.

Universities, as open organizations reliant on external social, political, and economic environments, face challenges such as policy support, lack of autonomy, instability, graduate unemployment, unreliable partnerships, limited budgets, and inflation. These challenges must be recognized and addressed. Hence, the identified external challenges indicate the necessity to revisit the model by expanding the four-frame model to incorporate a new dimension that addresses these external factors in organizational change.

This study suggests that the research university's vision, as well as the path to it, can be more fully understood when leaders utilize multiframe leadership approaches tailored to their specific strengths and organizational contexts. Consequently, employing these orientations may enhance organisational change processes.

7.2. Implications of the Study

This study has practical, theoretical, and policy-related implications. In practice, the study indicates that employing multiple frameworks in higher education reform processes can help leaders, both at the case study university and at other universities visioning research university status in similar contexts, to more comprehensively understand the research university vision and its path through diverse perspectives. Higher education organisations are complex entities that cannot be fully understood from a single point of view; rather, they require leaders who can see the entity and its processes from various perspectives. Bolman and Deal (2021, p. 367) argue 'shallow ideas about leadership mislead managers.' A multiframe view provides a more detailed understanding of a complex and varied area.

The theoretical implication of this study is the theory-driven leadership constructions of the path towards the research university that revealed relying on four leadership frames rather than on a single frame. In this regard, Bolman and Deal (2021, p. 446) stated the following:

> A world ever more dependent on organisations now finds them evolving too slowly to meet pressing social demands. Without wise leaders and artistic managers to help close the gap, we will continue to see misdirected resources, massive ineffectiveness, and unnecessary human pain and suffering.

This means that employing Bolman and Deal's four-frame approach could be more beneficial for leaders compared with narrower leadership orientations.

The involvement of ministerial-level organisations is closely linked to the impediments that university leaders have identified, which include both external and structural barriers. This necessitates in Ethiopia the Ministry of Education, the Civil Services Commission, and the Ministry of Finance and Economic Development to revisit their policies on higher education institutions apart from other public institutions.

Furthermore, the study revealed how leadership challenges extend beyond the internal aspects outlined in Bolman and Deal's four-frame model (structural, human resource, political, and symbolic). The study also specified external challenges, including political, social, and economic factors, in addition to the internal challenges suggested by Bolman and Deal. The presence of the external challenges implies that universities, as open system organisations, are influenced by their external environment, which affects their change processes (Brankovic & Cantwel, 2022; Hearn & Heydinger, 1985; Williams, 2018; Pfeffer & Salancik, 2003). Hence, universities must analyse their political, social, economic, and technological surroundings when initiating strategic plans to ensure they remain adaptable and resilient to external environments. The need to analyse external factors

implies that Bolman and Deal's four-frame model may need to be revisited to provide an additional perspective through which factors external to an organisation can be viewed.

Based on the study, the Bolman and Deal's model is suggested to be revised as depicted in figure 8. In the modified conceptual framework based on Bolman and Deal are included external (political, social and economic) challenges in addition to the internal ones categorised under the four frames. The internal challenges categorized under the Bolman and Deal four frames are indirectly influenced by external factors. For instance, universities face challenges in recruiting research staff, determining salary and incentive packages, and managing procurement and financial administration, all of which are directly governed by ministerial office guidelines. Additionally, a university's ability to attract talented students depends on the nation's job creation capacity for graduates. Therefore, universities cannot function in isolation; they must interact with the external environment, which affects their inputs, processes, and outputs

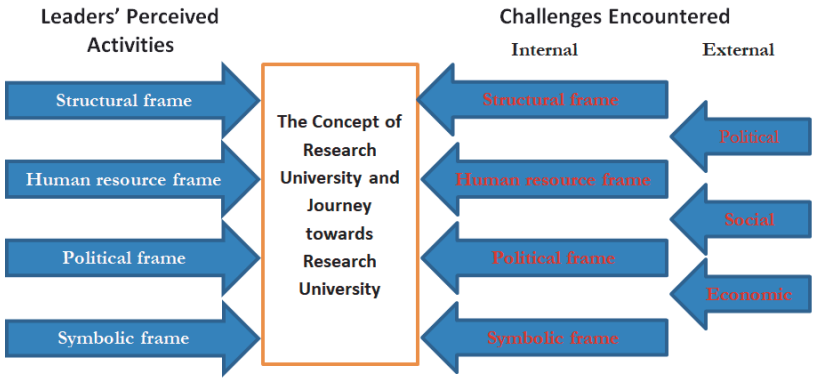

Figure 8. Modified conceptual framework based on the study's result

7.3. Contribution of the Study

This study significantly advances current knowledge by being the first to address issues related to a potential research university in Ethiopia, exploring leadership orientations, informing legislators, contributing to theoretical frameworks, and providing a foundation for future research.

- First and foremost, this study explors leadership orientations towards the research university vision, including leaders' perceptions of a research university, the significance of a research university vision, the primary activities to be undertaken, and the challenges faced by academic leaders.
- Second, the study helps academic leaders both at the case study university and at other universities visioning research university status in similar contexts, to understand leadership orientations according to Bolman and Deal's (2021) model in their journey towards the

research university vision. The four-frame model can be used to evaluate their current processes and reassess these based on recommendations.

- Third, the research informs legislators on the significance of resources and autonomy for university leaders in their journey towards the research university vision and the need to distinguish between policies, norms, and guidelines produced for research universities in particular, for higher education institutions in general and the civil services sectors.
- Fourth, the study makes a theoretical contribution to the field of higher education research in general, and the context of research universities in particular. The study revealed that applying Bolman and Deal's four-frame model is vital to comprehensively understanding complex issues in higher education. The model enriches these issues, broadens perspectives, and allows leaders to comprehend their activities through multiple lenses. However, the study also revealed that the model is limited in its ability to address leaders' external challenges. As a result, the researcher treated the external challenges that were not entertained under the four frames as an emerging dimension. Hence, this study may contribute to modifying Bolman and Deal's four-frame model so that it can address the external (government, situational) factors that directly or indirectly influence the activities of organisational leaders.
- Finally, since no previous research has been undertaken on research university issues and no previous research has uyilised Bolman and Deal's model in Ethiopia, the study contributes insights to the understanding of leader practices. Moreover, it can serve as a springboard for future researchers interested in the topic.

7.4. Recommendations

In light of the study's findings and conclusions, the following recommendations are made.

In aspiring to achieve the vision of a research university, leaders should:

- Strive to establish globally comparable research universities: Ensure that the concept of a research university is adapted to fit the local context while maintaining global standards.
- Engage stakeholders: Share the vision with stakeholders, create attractive incentives, evaluate progress and impact, and implement effective interventions.
- Address internal challenges: Develop strategies to tackle internal challenges using the four-frame model.
- Negotiate for autonomy: Work with external authorities to gain the necessary autonomy to manage external challenges effectively.

7.5. Limitations of the Study

This study was limited to a single higher education institution, so it might not present a complete picture of the research university phenomenon in Ethiopia's higher education system and is therefore not generalizable.

The data for this study were obtained using document analysis and interviews with top- and middle-level academic leaders only. This may make the study insufficient in terms of understanding leadership behaviours from the perspective of department level leaders and the staff.

The study examined the leaders' practices and the challenges they experience in line with Bolman and Deal's four-frame model. It did not, however, evaluate the extent to which leaders' activities are effective in contributing to the realization of the research university vision.

This study explored the leadership orientations in the path towards realizing the research university vision. However, it did not address which frame contributes most effectively towards the university's progress towards its vision.

The absence of previous research on research universities, as well as the use of the Bolman and Deal's four-frame model in the Ethiopian higher education context, may have some impact on this study.

7.6. Suggestions for Further Research

This study was conducted at a single university, even though Ethiopia has over 50 public universities, eight of which are research universities. It is challenging to generalize the findings to other Ethiopian HEIs that are aspiring to the vision of research universities. Therefore, future research could expand on this single-institution case study by doing multicase studies, comparing the perspectives of different universities using various research methods, such as combining quantitative and qualitative data.

The study's goal was to understand the research university vision and its implementation among top- and middle-level academic leaders using the four lenses of Bolman and Deal's model. The study could have evaluated the effectiveness of leaders in achieving their research university vision. Data could have been collected from leaders at all levels, as well as academic and administrative staff. Future research could focus on evaluating the effectiveness of leaders' actions from the perspective of both leaders and staff members, using both quantitative and qualitative approaches.

Furthermore, this study examined the leadership orientations (structural, human resource, political, and symbolic) of university leaders as they work towards achieving the research university vision. However, the specific contribution of each leadership orientation/frame requires careful investigation. Therefore, future research (potentially by the author of this study) could focus on exploring the contribution of each frame to the institution's journey toward realizing its research university vision.

One of the major challenges at BDU is the rigid rules and procedures that are based on guidelines from federal ministries (MoE, CSC, and MoFED). These guidelines have been criticized for being inflexible and hindering the university's efforts to become a research university. Future studies could evaluate whether similar challenges exist in other Ethiopian HEIs and provide recommendations.

Finally, other higher education scholars may conduct large-scale studies using Bolman and Deal's four-frame model to contribute to the generation of new knowledge with regard to Ethiopian universities.

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APPENDICES

Appendix 1: Key Characteristics of World-Class Universities

A world-class university:

- Has an international reputation for its research;
- Has an international reputation for its teaching;
- Has a number of research stars and world leaders in their fields;
- Is recognised not only by other world-class universities (for example, U.S. Ivy League universities) but also outside the world of higher education;
- Has a number of world-class departments (that is, not necessarily all);
- Identifies andwith builds on its research strengths and has a distinctive reputation and focus (that is, its 'lead' subjects);
- Generates innovative ideas and produces basic and applied research in abundance;
- Produces groundbreaking research output recognised by peers and prizes (for example, it produces Nobel Prize winners);
- Attracts the most able students and produces the best graduates;
- Can attract and retain the best staff;
- Can recruit staff and students from an international market;
- Attracts a high proportion of postgraduate students, both to be taught and for conducting research;
- Attracts a high proportion of overseas students;
- Operates within a global market and is international in many activities (for example, research links, student and staff exchanges, and throughput of visitors of international standing);
- Has a very sound financial base;
- Receives large endowment capital and income;
- Has diversified sources of income (for example, government, private sector, research income, and overseas student fees);
- Provides a high-quality and supportive research and educational environment for both its staff and its students (for example, high-quality buildings and facilities/high-quality campus);
- Has a first-class management team with strategic vision and implementation plans;
- Produces graduates who end up in positions of influence and/or power (that is, movers and shakers such as prime ministers and presidents);
- Often has a long history of superior achievement (for example, the Universities of Oxford and Cambridge in the United Kingdom and Harvard University in the United States);
- Makes a big contribution to society and our times;
- Continually benchmarks itself against top universities and departments worldwide; and
- Has the confidence to set its own agenda.

Source: Salmi (2009), adapted from Alden and Lin (2004).

Appendix 2: Kotter's Eight-Step Change Model

The first four stages focus on the practices associated with 'generating/unfreezing' the organisation:

1. **Establishing a sense of urgency**
   a. Examining market and competitive realities
   b. Identifying and discussing crises, potential crises, or major opportunities
   c. Providing evidence from outside the organisation that change is necessary
2. **Forming a powerful guiding coalition**
   a. Assembling a group with enough power to lead the change effort
   b. Encouraging the group to work together as a team
   c. Attracting key change leaders by showing enthusiasm and commitment
3. **Creating a vision**
   a. Creating a vision to help direct the change effort
   b. Developing strategies for achieving that vision
4. **Communicating the vision**
   a. Using every vehicle possible to communicate the new vision and strategies
   b. Teaching new behaviours by the example of the guiding coalition
   c. Building alignment and engagement through stories
   d. Keeping communication simple and heartfelt

The next three stages introduce many new practices, 'consolidating/changing':

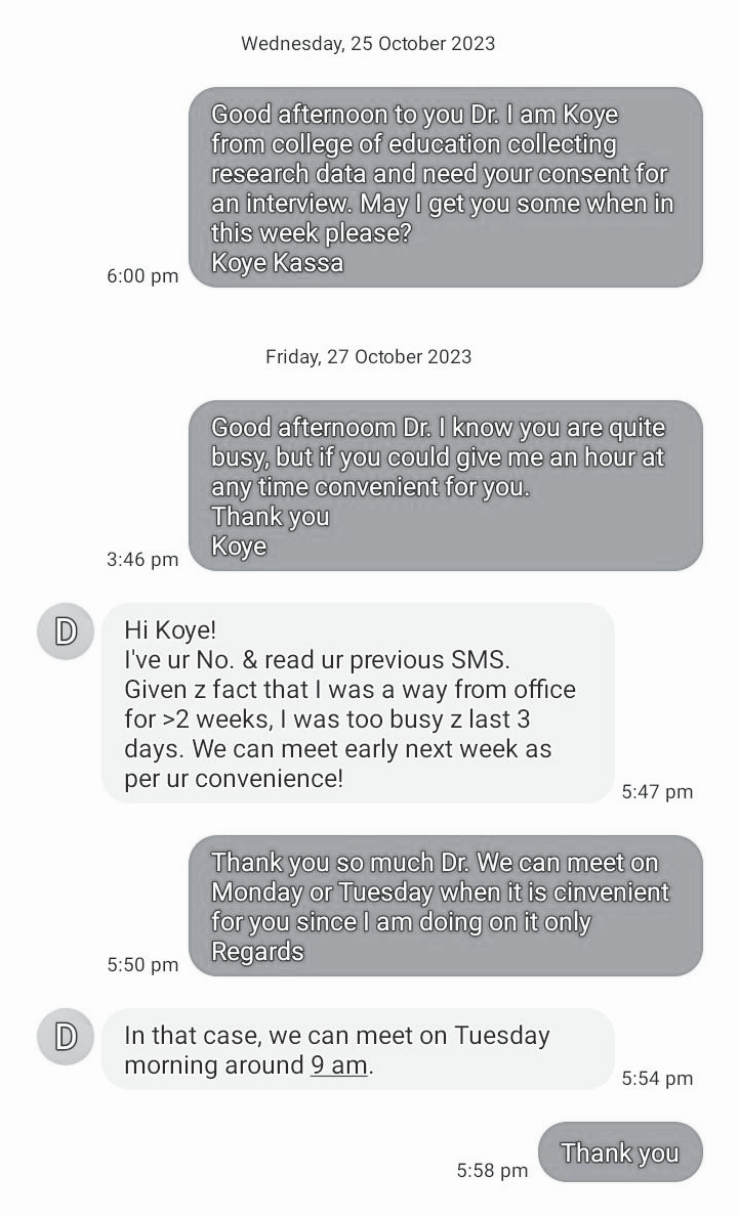
5. **Empowering others to act on the vision**
   a. Getting rid of obstacles to change
   b. Changing systems or structures that seriously undermine the vision
   c. Encouraging risk-taking and non-traditional ideas, activities, and actions
6. **Planning for and creating short-term wins**
   a. Planning for visible performance improvements
   b. Creating those improvements
   c. Recognising and rewarding employees involved in the improvements
7. **Consolidating improvements and producing still more change**
   a. Using increased credibility to change systems, structures, and policies that do not fit the vision
   b. Hiring, promoting, and developing employees who can implement the vision
   c. Reinvigorating the process with new projects, themes, and change agents

Finally, the last stage is required to ground the changes in the corporate culture, 'anchoring/refreezing', and make them stick:

8. **Institutionalizing new approaches**
   a. Articulating the connections between the new behaviours and corporate success
   b. Developing the means to ensure leadership development and succession

Source: Kotter (1995, p. 61); Kavanagh & Thite (2009, p. 185)

Appendix 3: Text Message Interaction to Request an Interview



Appendix 4. Interview guide

Themes of the interview

The major themes of this interview are grouped into four areas. The first group deals with the leadership practices related to the structural frames. The second theme focuses on the leadership practices towards the human resources of the university. The third theme is mainly related to the political frame of the leadership practices. Lastly, the fourth theme gives emphasis to the symbolic frame of the leadership practices.

Part I. Background Information

- Gender: _____
- Qualification _____
- Academic rank _____
- Years of Experience in BDU _____
- Years of Experience in current position_____

Part II. Interview Questions

1. How do you conceptualize a research university?
2. Why do you think the research university vision is important for BDU?
3. What are the major activities you engaged in to rationally select, recruit, develop, and retain research-focused staff, balancing the interests of the institution and staff, and working towards the creation of a research culture, including being a role model?
4. What major challenges do you face in the journey toward the vision of BDU becoming a research university?

Appendix 5. List of BDU documents used a data source

- The Blue Book: Bahir Dar University the Road to Vision 2025. Bahir Dar, Ethiopia, 2014.
- Strategic Plan (2015-2019). Bahir Dar University, Bahir Dar., 2015.
- Strategic Plan 2020 / 21-2029 / 30 Transforming BDU into a Research-Intensive University. Bahir Dar, Ethiopia, 2020.
- Bahir Dar University Senate Legislation(Revised). Bahir Dar, Ethiopa, 2020.

Appendix 6. Strategic Themes and Strategic Objectives of BDU in the Two Strategic Plans

Document Type	Strategic Themes	Strategic Objectives
Second Five Years: (2015–2019): Strategic Plan for 'Vision of Wisdom'	1. Excellence in Education 2. Excellence in Research and Community Services 3. Excellence in Academic Staff Development 4. Excellence in Institutional Leadership and Administration 5. Improved Infrastructure 6. Excellence in Communication and Partnership	• SO1: Ensuring education quality, relevance, access and equity • SO2: Expanding graduate programmes and improving their quality • SQ3: Transfering proven technologies and innovations to society • SQ4:Expanding problem-solving and income-generating research studies • SQ5: Expanding teacher development programmes • SQ6: Improving customer satisfaction • SQ7: Improving institutional leadership, attitude, organisational structure and performance • SQ8: Improving the system of income-generation, administration and monitoring • SO9: Creating and strengthening the system of mainstreaming cross-cutting issues • SO10: Improving the system of provision and administration of infrastructure • SO11: Developing strategic communication and partnership
Ten-Year Strategic Plan (2020/21–2029/30):	1. Excellence in Teaching and Learning 2. Excellence in Research	• SO1: Expanding enrolment with particular emphasis on graduate programmes • SO2: Ensuring programme relevance and quality across

Transforming BDU into a Research-Intensive University	3. Excellence in Community Engagement 4. Advancing Human Resource Development 5. Enhancing Good Governance and Leadership 6. Advancing Communication and Partnership 7. Improving Infrastructure and Resources	academic units • SO3: Strengthening the Postgraduate Programme Office • SO4: Implementing contemporary instructional and assessment practices • SO5: Integrating indigenous knowledge use • SO6: Strengthening online learning • SO7: Enhancing the research cycle from initiation to completion, outputs and outcomes • SO8: Strengthening and opening research centres and promoting research groups into centres of excellence • SO9: Enhancing knowledge generation and dissemination of research findings • SO10: Encouraging interdisciplinary and trans-disciplinary research • SO11: Establishing and strengthening integrated community development projects and technology transfer centres • SO12: Strengthening the university-industry linkage • SO13: Fostering a culture of innovation and technology transfer • SO14: Advancing social responsibility through professional services • SO15: Improving the availability and implementation capacity of academic and administrative staff • SO16: Maintaining gender and diversity inclusiveness • SO17: Improving the performance appraisal system of the academic and administrative staff • SO18: Enhancing the reward system and staff motivation and

	cohesion • SO19: Building institutional capability • SO20: Enhancing organisational efficacy • SO21: Strengthening institutional internal control system • SO22: Branding BDU as a leading research-intensive university • SO23: Creating a robust information management system • SO24: Establishing systems of internal and external communication • SO25: Enhancing the system of internationalization and partnership • SO26: Enhancing the visibility of BDU through an integrated communication approach and platforms • SO27: Establishing a system for alumni and knowledge diaspora engagement in the university • SO28: Ensuring the supply of adequate, reliable and sustainable electricity and drinking water, and the safe collection and disposal of waste • SO29: Enhancing the development and uyilisation of digital information technologies • SO30: Improving the development and uyilisation of physical infrastructures • SO31: Building strong bases for steady flows of adequate income

Source: researcrcher's summary from BDU, 2020; 2015

Appendix 7. Constructed Leadership Orientations towards the Vision of BDU as a Research University

Leader	Structural		Human Resource		Political		Symbolic		Total frame used	Orientation
	Activity (7)	Challenge (9)	Activity (2)	Challenge (4)	Activity (4)	Challenge (2)	Activity (2)	Challenge (2)		
L1	7	4	2	1	3	1	2	1	**4**	Multiframe
L2	4	2	1	1	1	0	2	0	**4**	Multiframe
L3	4	2	1	1	3	2	1	0	**4**	Multiframe
L4	5	4	2	0	2	1	2	0	**4**	Multiframe
L5	4	4	2	1	1	2	1	0	**4**	Multiframe
L6	3	2	2	1	1	1	1	1	**4**	Multiframe
L7	1	3	2	1	2	3	2	0	**4**	Multiframe
L8	1	3	2	2	3	1	2	0	**4**	Multiframe
L9	2	1	2	0	3	0	2	0	**4**	Multiframe

L10	4	3	2	3	2	0	1	1	**4**	Multiframe
L11	2	1	1	2	0	1	2	1	**4**	Multiframe
L12	3	2	1	1	1	2	1	1	**4**	Multiframe
L13	5	3	1	0	2	1	1	0	**4**	Multiframe
L14	3	2	2	2	2	1	2	1	**4**	Multiframe
L15	3	2	2	0	1	0	2	1	**4**	Multiframe
L16	4	5	2	0	2	0	1	0	**4**	Multiframe

Key: (1) Numbers assigned for activity and challenge in brackets represent the number of activities and challenges identified under each frame; (2) numbers assigned for each leader for activity and challenge under each frame represent the number of activities and challenges mentioned by a specific leader.