



ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
MANAGEMENT DEPARTMENT

**STRATEGY-MAKING IN AFRICAN HIGHER EDUCATION: CHALLENGES
AND OPPORTUNITIES, DISCURSIVE PRACTICES, AND FACULTY
ENGAGEMENT IN ETHIOPIAN UNIVERSITIES**

Author: Zerihun Abera Gudissa

Main Supervisor: Prof. Daniel Pittino

Professor of Business Administration at Jönköping University

Co-Supervisors:

Dr. Yitbarek Takele

Associate professor at Addis Ababa University

Dr. Mohammad Eslami

Associate professor at University of Manitoba

A Dissertation Submitted to the Department of Management, School of Graduate Studies
of Addis Ababa University in Partial Fulfillment of the Requirements for the Degree of
Doctor of Philosophy in Management

November 9, 2025

Addis Ababa, Ethiopia

Approval and Signature Sheet

This dissertation entitled "Strategy-Making in African Higher Education: Challenges and Opportunities, Discursive Practices, and Faculty Engagement in Ethiopian Universities" is submitted to Department of Management, Addis Ababa University in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in Management. We, board of examiners, have read and evaluated this dissertation, and examined the nominee. We recommend the dissertation be accepted as partial fulfillment of the requirements for the Degree of Doctor of Philosophy in Management.

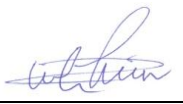
External Examiner: Abebe Eiigu (Ph.D.)

Professor of Management at National University of Science and Technology, OMAN

Signature: 

Internal Examiner: Workneh Kassa (Ph.D.)

Associate Professor of Management at Addis Ababa University, Ethiopia

Signature: 

Main Supervisor: Daniel Pittino (Ph.D.)

Professor of Business Administration at the Center of Family Entrepreneurship and Ownership at Jönköping International Business School, Jönköping University, Sweden

Signature: 

Co-supervisor: Yitbarek Takele (Ph.D.)

Associate professor of Business Administration at Addis Ababa University, Ethiopia

Signature: 

Co-supervisor: Mohammad Eslami (Ph.D.)

Associate professor of Business Administration at Asper School of Business, University of Manitoba, Winnipeg, Canada

Signature: 

Author's Statement

I, Zerihun Abera Gudissa, would like to declare that this dissertation entitled “Strategy-Making in African Higher Education: Challenges and Opportunities, Discursive Practices, and Faculty Engagement in Ethiopian Universities” is my original work and none of the essays has been submitted to any other institution elsewhere to award any degree. All sources of information, ideas and views used in this dissertation are dully acknowledged.

Candidate: Zerihun Abera Gudissa

Signature:

Date: December 9, 2025

Table of Contents

Approval and Signature Sheet.....	Error! Bookmark not defined.
Author’s Statement	ii
List of Tables	vii
List of Figures	viii
List of Abbreviations	ix
Acknowledgments.....	x
Abstract	xi
CHAPTER 1: GENERAL INTRODUCTION.....	1
1.1 Background	1
1.2 Statement of the problem	2
1.3 Objectives of the research	4
1.3.1 General objective	4
1.3.2 Specific objectives	4
1.4 Significance of the study.....	5
1.5 Scope of the study	6
1.6 Limitations of the study	7
1.7 Structure of the study	8
1.8 Overarching representation of the chapters of the study.....	9
References.....	11
CHAPTER 2: STRATEGY-MAKING STUDIES ON MODERN AFRICAN HIGHER EDUCATION: A SYSTEMATIC REVIEW OF CHALLENGES AND OPPORTUNITIES	17
Abstract.....	17
2.1 Introduction.....	17
2.2 The overview of strategy-making practice in African HEIs	19
2.3 Research methods	20
2.3.1 Literature search.....	20
2.3.2 Study records.....	22
2.3.3 Synthesis of results.....	23
2.4 Results.....	24
2.3.3 Bibliographic details	24
2.3.3 Theories and theoretical frameworks	25
2.4.3 Methodologies.....	26
2.4.4 Political	27
2.4.5 Economic	30
2.4.6 Socio-cultural	32
2.4.7 Technological.....	35
2.5 Discussion	37
2.5.1 Directions for future research.....	38
2.5.2 Practical implications	41

2.5.3	Limitations	42
2.5.4	Conclusion	44
	References.....	45
CHAPTER 3: PARTICIPATION IN THE STRATEGY-MAKING PROCESS AT HEIS: A CASE STUDY AND ANALYSIS OF STRATEGY DISCOURSE AT AN HEI IN ETHIOPIA		
	Abstract.....	52
3.1	Introduction.....	52
3.2	Literature review	53
3.2.1	Participation in strategy studies in business.....	53
3.2.2	Participation in the strategy-making of HEIs and discursive practices.....	54
3.3	Methodology	55
3.3.1	Research method and data sample	55
3.3.2	Data analysis	57
3.4	Results.....	57
3.4.1	Discourses impeding participation.....	57
3.4.2	Discourses enhancing participation.....	59
3.5	Discussions.....	62
3.5.1	Study contributions and implications.....	64
3.5.2	Limitations and future research.....	65
3.6	Conclusion	66
	References.....	67
CHAPTER 4: STRATEGY-MAKING IN HIGHER EDUCATION INSTITUTIONS: FACULTY MEMBERS' ACADEMIC ENGAGEMENT WITH INDUSTRY AND STRATEGY PARTICIPATION		
	Abstract.....	69
4.1	Introduction.....	69
4.2	Literature Review.....	72
4.2.1	Resource-Based View (RBV)	72
4.2.3	Empirical review	73
4.2.4	Synthesis and Research Gap	74
4.2.5	Conceptual Framework and Hypotheses Building.....	74
4.2.6	Conceptual Model.....	78
4.3	Methodology	79
4.3.1	Sample and Sample Selection	79
4.3.2	Convenience Sampling.....	81
4.3.3	Data Analysis	81
4.4	Results.....	84
4.4.1	Sample Characterization	84
4.4.2	Evaluation of the Measurement Model	85
4.4.3	Evaluation of the Structural Model	87
4.5	Discussion and Conclusions.....	92
4.6	The study implications	93
4.6.1	Implications for Theory.....	93

4.6.2	Practical Implications.....	95
4.7	Limitations and Avenues for Future Research.....	96
	Disclosure Statement.....	97
	References.....	98
	CHAPTER 5: SUMMARY, SYNTHESIS, CONTRIBUTIONS, LIMITATIONS, AND	
	CONCLUSIONS.....	105
5.1	Summary of Findings.....	105
5.2	Overall Discussion and Synthesis	106
5.3	Research Contributions	107
5.3.1	Theoretical Contributions.....	107
5.3.2	Contextual Contributions	108
5.3.3	Practical Contributions.....	108
5.4	Limitations and Future Research Directions	109
5.5	Overall Conclusion.....	109
	References.....	111
	Appendices.....	114
	Appendix 1: Total number of interviewees and focus group discussion participants	114
	Appendix 2: Data structure	115
	Appendix 3: Survey questionnaire	117

List of Tables

Table 1. Number of studies across countries in final sample	24
Table 2. The distribution of studies on African higher education based on their methodologies used	27
Table 3. Key features of studies with political focus	29
Table 4. Key features of studies with economic focus	31
Table 5. Key features of studies with socio-cultural focus.....	34
Table 6. Key features of studies with technological focus	36
Table 7. Variable Grouping.....	79
Table 8. Variables and Scales.....	82
Table 9. Total Variance Explained.....	84
Table 10. Sociodemographic Characteristics	84
Table 11. Results of Measurement Model.....	86
Table 12. Fornell and Larcker Criterion.....	86
Table 13. HTMT ratio	87
Table 14. Structural Model Results	88

List of Figures

Figure 1. Overarching model of the study.....	10
Figure 2. Summary of the literature search and inclusion process in the PRISMA Flow Diagram.	23
Figure 3. Strategy-making studies on African.....	24
Figure 4. Strategy discourses	64
Figure 5. Conceptual research model.....	79
Figure 6. PLS-SEM model.....	88

List of Abbreviations

4IR	Fourth Industrial Revolution
AAU	Addis Ababa University
AVE	Average Variance Extracted
CB	Covariance-Based
CoP	Communities of Practice
CR	Composite reliability
CRMT	Collective Resource Mobilization Theory
FGD	Focus Group Discussions
HEIs	Higher Education Institutions
HTMT	Heterotrait-Monotrait Ratio
PESTLE	Political, Economic, Socio-Cultural, Technological, Legal, Environmental
PLS	Partial Least Squares
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
RBV	Resource-Based View
SEM	Structural Equation Modeling
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
VIF	Variance Inflation Factor

Acknowledgments

I am deeply grateful to my main supervisor, Professor Daniel Pittino (Ph.D.), Professor of Business Administration at the Center of Family Entrepreneurship and Ownership, Jönköping International Business School, Jönköping University, Sweden. His exceptional guidance, insightful feedback, and unwavering support throughout this research journey have been invaluable. His encouragement and constructive criticism not only strengthened the quality of this work but also inspired me to grow as a researcher and thinker.

I am equally thankful to my co-supervisors, Dr. Yitbarek Takele (Ph.D.), Associate Professor of Business Administration at Addis Ababa University, Ethiopia and Dr. Mohammad Eslami (Ph.D.), Associate Professor of Business Administration at Asper School of Business, University of Manitoba, Winnipeg, Canada, whose guidance, advice, and constructive suggestions were invaluable. Their thoughtful support and encouragement provided clarity and direction.

I owe my deepest gratitude to my family, whose love, patience, and unwavering support have been the foundation of my perseverance. Their constant belief in me, encouragement through difficult times, and celebration of small successes made it possible for me to complete this work with determination and confidence.

I am sincerely thankful to the research participants, whose generous sharing of time, experiences, and insights enriched this study and formed the basis for meaningful findings. Their contributions were essential to the success of this research.

Finally, I would like to extend my heartfelt appreciation to all academic staff of Jönköping International Business School and Addis Ababa University, College of Business and Economics, for their constructive comments, thoughtful engagement, and encouragement during joint seminars. Their insights and feedback significantly enhanced the quality of this research and broadened my perspective.

This work represents not only my efforts but also the guidance, support, and encouragement of all these remarkable individuals. I am profoundly grateful to each of them, as their contributions have made this journey both meaningful and memorable.

Abstract

Strategy-making perspective is a vital management tool for interpreting external and internal environments and aligning organizational activities with long-term goals. The main objective of this dissertation is to examine strategy-making in higher education institutions (HEIs) by raising an important question: what are the external and internal factors that influence the strategy-making process in higher education institutions? Based on the African context, it intends to provide empirical evidence on both external and internal factors that influence participation in strategy-making and its effectiveness. The dissertation employed a mixed-methods approach: a systematic literature review to synthesize existing literature on African higher education, and both qualitative and quantitative methods for the empirical investigation in the Ethiopian higher education context. Across African higher education, strategy-making is shaped by socio-cultural and political factors, while economic, technological, legal, and environmental dimensions remain underexplored, highlighting the need to strengthen governance, diversify revenue, enhance university–industry partnerships, manage talent, and decolonize curricula. In the Ethiopian context, strategy participation is influenced by discursive practices, where top management mystifies strategic concepts, middle management bureaucratizes them, and academic and administrative staff challenge these through their professional and organizational identities. Moreover, faculty engagement with industry positively affects their participation in strategy-making by providing practical knowledge, skills, and insights that align individual contributions with institutional goals. This dissertation advances our understanding of strategy-making in non-business and non-Western contexts by broadening the concept of strategic subjectivity to include lower management and employees, highlighting the role of communicative and participatory practices. It also provides Africa- and Ethiopia-specific insights into higher education strategy, showing how academic engagement with industry and the interplay of policy, industry demands, and academic values shape strategy-making. Practically, it offers guidance for higher education managers and policymakers by emphasizing participation, understanding power dynamics, and leveraging faculty–industry engagement to produce actionable strategic decisions.

Keywords: Higher education institutions, Strategy-making, Participation, Strategy discourses, Academic engagement

CHAPTER 1: GENERAL INTRODUCTION

1.1 Background

Since the 1960s, strategic management has become a key management tool in both business and non-business organizations for responding to changing social, economic, and technological conditions, as well as increasing public scrutiny (Buckland, 2009; Hu et al., 2018). Over time, strategy-making, an important dimension of strategic management, has evolved into a vital perspective for interpreting external and internal environments and aligning organizational activities with long-term goals (Mintzberg et al., 1998; Poister, 2003; Buckland, 2009; Pisano & Hitt, 2012). It offers a comprehensive framework for managers, policymakers, and strategy practitioners to engage diverse stakeholders across all levels of the institution in strategic work (Mantere & Vaara, 2008; Laine & Vaara, 2015; Jarzabkowski et al., 2025). This develops the explanatory and analytical strength of the strategy-making perspective in understanding organizational phenomena.

The formal adoption of a strategy-making perspective in higher education institutions (HEIs) began with George Keller's influential book *Academic Strategy* in 1983. Since then, numerous studies have examined the application of strategy-making in higher education, focusing on areas such as strategic planning and government policy reforms (Neave, 1985; Farrant & Afonso, 1997; Saad et al., 2008; Trilokekar & Masri, 2016; Han, 2022), technology transfer and commercialization (Siegel & Leih, 2018), competitiveness and the creation of competitive advantages (Lynch & Baines, 2004; Parakhina et al., 2017), higher education internationalization (Rudzki, 1995; Poole, 2001; Hong, 2020), evolving government priorities toward knowledge-based economies (Degn, 2015; Morphey et al., 2018), and the increasing competition and dynamism of the education environment (Ayhan & Oezdemir, 2022). In general, these studies highlight the persistent strategic challenges and emerging opportunities that demand effective organizational strategy-making within HEIs.

In the African context, the adoption of a strategy-making perspective in higher education has also received growing attention. Early studies by Farrant and Fielden (1996) and Farrant and Afonso (1997) underscored its importance in addressing challenges unique to African contexts and evolving policy dynamics. Similarly, Brock-Utne (2003) and Ngwana (2002) emphasized the need for a contextualized strategic framework to ensure

the survival, growth, and adaptation of Sub-Saharan African universities. Building on this, Muswaba and Worku (2012) argued that effective strategy-making must account for the continent's complex and turbulent educational landscape. More recent research (Gonzales & Núñez, 2021; Risi et al., 2023) has examined how knowledge-based economy policies and academic globalization influence African higher education, while others (Garnett et al., 2011; Kabui et al., 2018; Hadji & Osunkunle, 2020) have highlighted the role of strategic management in enhancing competitiveness and global positioning. Likewise, Hunde et al. (2023) reported that Ethiopia's national policy frameworks increasingly view higher education as central to national development, emphasizing the need to align institutional strategies with broader socioeconomic priorities. Most importantly, these studies focus on the need and importance of strategy-making for African higher education. Considering its philosophical underpinnings and organizational significance in achieving long-term goals, this study explores strategy-making in higher education.

This study offers an integrated understanding of how external and internal factors interact to shape strategy-making in higher education institutions, providing theoretical, contextual, and practical contributions. Theoretically, it advances strategic management literature by extending the understanding of strategy-making in non-business and non-Western contexts, expanding the concept of strategic subjectivity to include lower management and employees, and demonstrating how individual level motivation and activities influences participation in strategy-making process. Contextually, it provides insights into African higher education—particularly within Ethiopia—showing how policy frameworks, industry relations, and academic values interact to shape institutional strategy-making and organizational adaptation. Practically, it offers practical implications for higher education leaders and policymakers by emphasizing the need for inclusive, participatory, and communicative strategy-making processes that leverage academic engagement to strengthen decision quality and institutional effectiveness.

1.2 Statement of the problem

There has been growing scholarly attention on strategy-making in higher education, particularly in the African context (Farrant & Fielden, 1996; Farrant & Afonso, 1997; Teferra & Altbach, 2004; Jowi, 2012; Moshtari & Safarpour, 2024; Alemu et al., 2024). Early studies examined the strategy-making process, its formulation, and implementation in education (Muswaba & Worku, 2012), as well as the roles of strategic thinking,

leadership, and governance (Dampson & Edwards, 2019). Others explored the relationship between strategic planning and organizational performance (Garnett et al., 2011; Owolabi & Makinde, 2012; Kabui et al., 2018; Hadji & Osunkunle, 2020) and the internationalization of African higher education (Jowi, 2012; Alemu et al., 2024; Moshtari & Safarpour, 2024; Yousef, 2024). These studies collectively indicate the expanding application of strategy-making perspectives in modern African higher education.

In addition, many recent studies have highlighted the contribution of internal stakeholders to the strategy-making process in HEIs. Jalal and Murray (2019) and Falqueto et al. (2020) showed that university internal stakeholders provide valuable information to the strategy-making process and make the strategic plan more effective. In addition, Ssebuwufu et al. (2012) also showed that internal stakeholders, particularly faculty members, can contribute by broadening the definition of strategic goals at different organizational levels. Similarly, Amrollahi and Ghapanchi (2016) indicated that internal stakeholders provide innovative ideas to the strategy-making process, which improve the quality and standard of the plan. Further, in their studies on academic engagement with industry, D'Este and Perkmann (2011) found that there is a positive relationship between faculty members' academic engagement with industry and strategic planning. This indicates that internal stakeholders, individual level factors including their relevant knowledge and information, contribute to the strategy-making process through their active participation.

While empirical studies on participation in strategy-making are well documented in the business sector in Europe (e.g., Hutter et al., 2017; Mack & Szulanski, 2017), only limited studies emphasize internal stakeholders' participation in the strategy-making of the higher education sector. Only Scandura and Iammarino (2022) and Thompson (2017) noted the need for internal stakeholders' active involvement in the strategy-making process of higher education. In addition, Amrollahi and Ghapanchi (2016) emphasized the active participation of faculty members in the strategy-making process through crowdsourcing or online methods using an open strategy-making perspective at a university.

Despite this progress, African higher education has continued to face persistent challenges, according to the World Education Statistics 2024, tertiary education enrollment ratios in sub-Saharan Africa were at or below 30% in 2022, highlighting a stark contrast with high-income countries where enrollment exceeds 79%. Gender disparities persist, with female student representation in public universities in some sub-Saharan African countries, for

instance, accounting for only about 30% of total enrollment (Badoo, 2013). Furthermore, African universities are lagging behind their counterparts in Europe, America, and Asia in terms of knowledge production, contributing less than 2% of global research outputs (Makoe, 2022; Bukusi et al., 2023). Academics in Africa face numerous challenges when it comes to publishing in international academic journals (Cloete et al., 2015). Additionally, only a small percentage of African universities utilize advanced educational technologies, and the continent remains a laggard in adopting new digital libraries (Mudogo Mutula, 2012). This raises an important question: *what are the external and internal factors influence the strategy-making process in higher education institutions?* Addressing this requires a comprehensive, context-sensitive understanding of strategy-making dynamics.

There has been insufficient analysis of strategy-making in higher education. In particular, existing research on African higher education remains fragmented, often limited to isolated themes or specific national cases (Jowi, 2012; Hlengwa, 2014; Mushemeza, 2016; Moshtari & Safarpour, 2024; Ali, 2024) which constrains our comprehensive understanding of how external and internal forces interact in shaping institutional strategy-making. Furthermore, little is known about how individual level factors and activities contribute to participation in strategy-making and its effectiveness (D'Este & Perkmann, 2011; Falqueto et al., 2020; Thompson, 2017). To address this gap, this study explores the external factors influencing strategy-making in African higher education, as well as how internal factors and academic engagement affect strategy participation and the overall strategy-making process, with particular attention to the Ethiopian context.

1.3 Objectives of the research

1.3.1 General objective

The main objective of this dissertation is to examine the strategy-making in higher education institutions (HEIs).

1.3.2 Specific objectives

The specific objectives of the research are:

- To explore the strategic challenges and opportunities to modern African higher education from strategy-making perspective
- To analyze the discursive practices that influence internal stakeholders' participation in the strategy-making process at an HEI in Ethiopia
- To examine the effect of academic engagements with industry on strategy participation and seeks to discover the factors that motivate or influence these relationships at a large public university in Ethiopia

1.4 Significance of the study

This study explores the strategy-making of HEIs, using existing literature on modern African higher education and empirical data collected from a large public HEI in Ethiopia. First, the systematic review of strategy studies on modern African higher education identifies key research directions for African higher education, including: (a) African higher education governance; (b) university-industry linkage; (c) human resource management and talent management practices; and (d) decolonization of African higher education. To date, this study is the first systematic review that attempts to provide a comprehensive understanding of the challenges and opportunities in modern African higher education from a strategy-making perspective.

Second, internal stakeholders' participation in the strategy-making process is crucial to HEIs (Amrollahi & Ghapanchi, 2016; Hassanien, 2017). Thus, the empirical findings of this study are highly significant to university managers, policymakers, and strategy practitioners, by providing valuable practical insights important to strategy development and implementation in higher education. Moreover, to the best of our knowledge, this study is also the first discursive analysis in a non-business context, public HEIs, where it may be difficult to assume a change in power structure, to provide managers and strategy practitioners with guidance on how strategy should be communicated, using texts and talk, to enhance participation and relegate its impediments.

Third, this study has also important theoretical significance to the academic engagement and strategy-making process of the university by revealing a strong statistically significant relationship between intensive academic engagement with industry and the level of participation in the strategy-making process. Further, it evidenced that academic engagement with industry is driven by intrinsic motivation, such as faculty members'

desire for industry learning. This provides valuable information to university managers and practitioners planning to design and promote university strategies to consider the active participation of academicians in the process.

1.5 Scope of the study

The dissertation comprises of three independent paper which are delimited to African and particular Ethiopian higher education only. The first paper covers the strategy-making challenges and opportunities in the modern African higher education context. It systematically reviews and synthesizes existing studies by employing the strategy-making perspective using the PESTLE framework-political, economic, socio-cultural, technological, legal, and environmental factors-to guide the analysis. The second and third papers are contextually delimited to Ethiopian higher education, using a case study of a large public university.

The first paper extends prior strategy-making studies in similar contexts (Teferra & Altbach, 2004; Jowi, 2012; Moshtari & Safarpour, 2024; Alemu et al., 2024), which call for further research on strategy-making in African higher education. These studies suggest the need for deeper investigations that address the unique challenges and opportunities of modern African higher education, to provide comprehensive understanding for higher education managers, policy decision-makers, and strategy practitioners. Thus, the first paper in this dissertation conducts a systematic review of existing conceptual, quantitative, and qualitative studies that focus only on African public HEIs. However, only those studies that address challenges and opportunities and offer practical implications for modern African higher education were included in the final sample for analysis.

In the second paper, the study was delimited to a single case study setting to enable in-depth exploration and rich contextual analysis, thereby providing deeper insights to existing knowledge (Yin, 2009). Since the study aimed to deeply analyze strategy discourses of a strategic phenomenon within a specific organization, data was collected only from internal stakeholders as strategic actors. Methodologically, we conducted retrospective interviews and focus group discussions (FGDs) for discursive data generation.

Similarly, the third empirical paper also adopted a single case study design, serving as a particularly illustrative case in a non-traditional context to offer valuable lessons for other

institutions or organizations, while remaining a feasible and manageable option (Baker et al., 2013; Winton & Sabol, 2022). Therefore, due to accessibility and timely data collection, the study was delimited to a single large public university. As the main objective of the paper focuses on academic engagement with industry, only university faculty members participated in the study, as the engagement of non-academic university members was not correlated with the study variables (Sarstedt et al., 2017). To explore the relationship between academic engagement with industry and strategy participation, Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed for analysis, as it is suited to small sample sizes (Hair et al., 2019).

1.6 Limitations of the study

While this dissertation provides deeper insights, it is essential to acknowledge its theoretical and practical limitations. First, critiques may arise from the exclusive use of a single case study design. One common critique of using a single case study is the lack of comparative insight. However, it is widely recommended that a single case study can provide rich contextual detail or serve as a critical test of significant theory on a specific organizational phenomenon (Yin, 2009). Since our focus was on the organizational strategy phenomenon, this approach offers a valuable opportunity to contextualize alternative sets of concepts or explore variables such as strategy discourses (Knights & Morgan, 1991) and participation in the strategy-making process (Vaara et al., 2019). To address methodological concerns, we relied on prior studies when applying certain concepts or variables in our empirical research.

Second, in examining the relationship between academic engagement with industry and participation in university strategy-making, we used convenience sampling, which is often criticized for potential bias due to under-representation. Such inclusion or exclusion of samples may limit the reliability and generalizability of the study findings (Baker et al., 2013; Winton & Sabol, 2022). However, this is not always problematic, depending on the variables and data used in the study (Sarstedt et al., 2017). Since we were interested in the explanatory power of the variables rather than their predictive precision, we used statistical techniques such as bootstrapping to mitigate the issue of selection bias (Hair et al., 2019; Winton & Sabol, 2022).

Third, in testing the effect of intensive academic engagement with industry on the level of strategy participation, we also used a small sample size, which is similarly criticized for its impact on the reliability and generalizability of findings. It would have been beneficial to use suitable techniques to address these concerns. Therefore, for the analysis, we used Partial Least Squares Structural Equation Modeling (PLS-SEM) instead of Covariance-Based SEM (CB-SEM), as PLS-SEM is more suited to small sample sizes and adopts the statistical technique of bootstrapping to address such issues (Hair et al., 2019).

Finally, we recommend that future studies adopt a multiple-case study design, use alternative sampling techniques, and include larger datasets to improve the validity of the findings.

1.7 Structure of the study

The dissertation is structured into five chapters. Except for the first chapter, which covers the overall introductory part of the study, including the background, statement of the problem, objectives, significance, scope, and limitations, Chapters 2, 3, and 4 include Papers 1, 2, and 3, respectively, which have been written for peer-reviewed publication.

Paper 1 presents a systematic review and synthesis of strategy studies on African higher education, providing a comprehensive understanding of the challenges and opportunities for modernizing African higher education from a strategy-making perspective. This paper is single-authored and is currently under review at *Higher Education*. It was also presented at an international conference held on 19th December 2024 at the University of Brescia, DICATAM, Brescia (Italy).

Paper 2 presents a study that investigated participation in the strategy-making process at a large public university in Ethiopia. It uses critical discourse analysis to identify the discursive practices that impede or enhance participation in the strategy-making process. This paper is co-authored by Daniel Pittino, Mohammad Eslami, and Yitbarek Takele. It is published at *Perspectives: Policy and Practice in Higher Education*. In parallel, it was also presented to European Academy of Management (EURAM) Conference, took place in June 2025.

Paper 3 presents a study that examines academic engagement with industry and how this contributes to participation in the strategy-making process within the Ethiopian higher education context. It also aims to discover what motivates faculty members to engage with

industry, which ultimately affects their contributions to the university's strategy-making process. This paper is co-authored by Daniel Pittino, Yitbarek Takele, and Mohammad Eslami and is published at *Cogent Education*.

The final chapter presents the summary of results, general discussion, overall conclusions of the study, and recommendations. Based on the limitations of the study, it also outlines directions for future research.

1.8 Overarching representation of the chapters of the study

This dissertation develops an integrated framework for understanding strategy-making in higher education through the interaction of both external and internal factors. Figure 1 shows overarching model by addressing different dimensions of the strategy-making process in higher education contexts. The model shows the external factors such as political, economic, socio-cultural, technological, legal, and environmental that shape strategy-making in higher education.

In the model, institutional\organizational factors affect participation in the strategy-making process. Discursive practices, leadership style, and organizational cultures either enhance or impede strategy participation. It also highlights how leadership style, and organizational cultures moderate the influence of individual level motivation and activities on strategy participation.

Finally, individual-level factors, particularly how faculty members' academic engagement with industry affect their participation in the university's strategic processes. In the model, two individual level factors motivates academic engagement with industry; individual learning and access to resources, and how the engagement practices support their participation in strategy-making process. In all the relationships shown in the model, the direct and indirect relationships, as well as the moderating roles of organizational cultures and leadership style are investigated thoroughly.

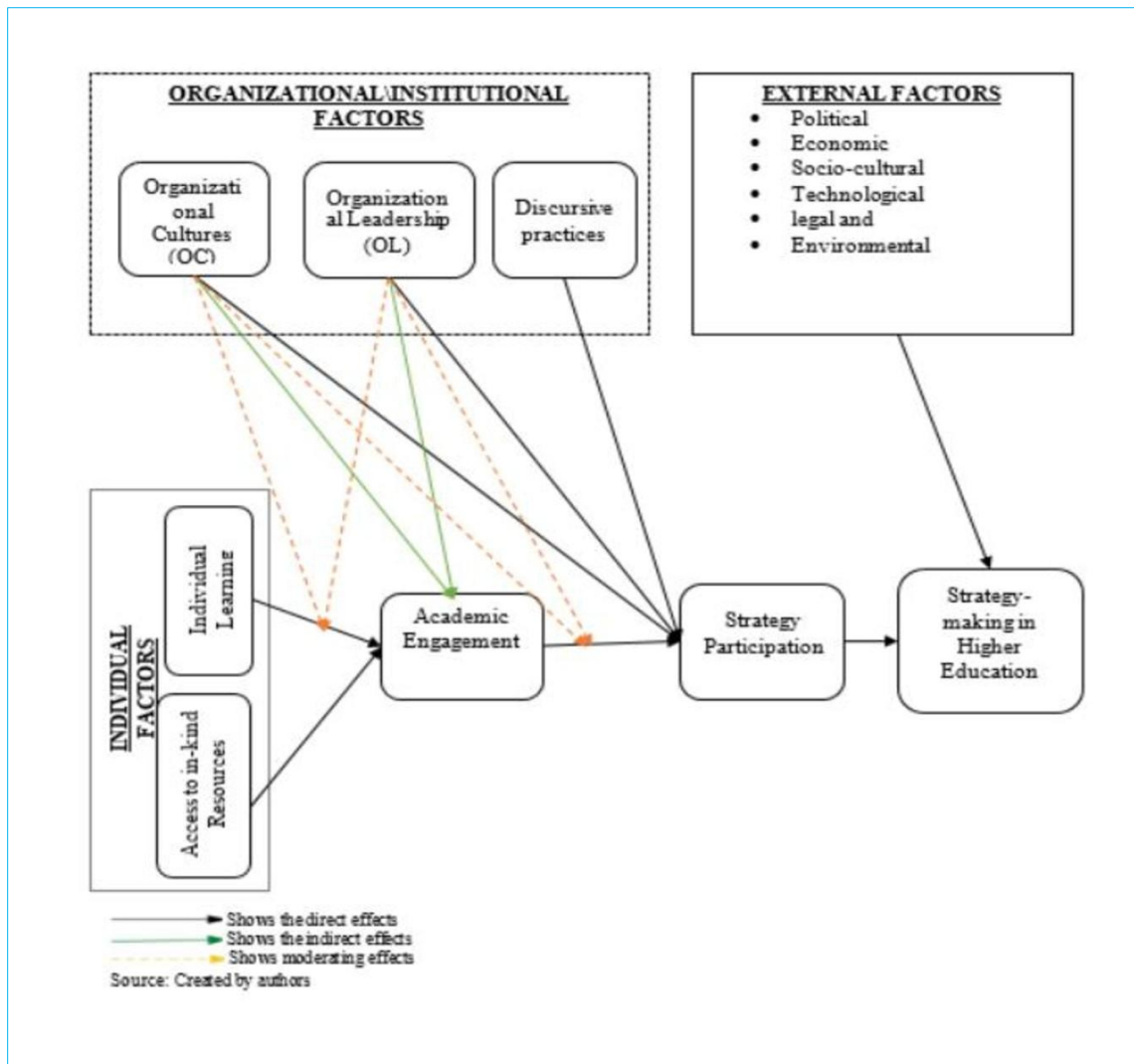


Figure 1. Overarching representation of the study

References

- Alemu, B. S., Gameda, B. I., & Zeleke, B. (2024). The effects of internationalization of higher education on Ethiopian public universities: a critical review of literature. *Ethiopian Journal of Science and Sustainable Development*, *11*(2), 38-50.
- Amrollahi, A., & Ghapnchi, A. H. (2016, January). Open strategic planning in universities: A case study. In *2016 49th Hawaii International Conference on System Sciences (HICSS)* (pp. 386-395). IEEE.
- Ayhan, İ., & Özdemir, A. (2022). A practical framework for ranking universities by their competitive advantages: a mixed methods study on foundation universities in Turkey. *The TQM Journal*.
- Baker, R., Brick, J. M., Bates, N. A., Battaglia, M., Couper, M. P., Dever, J. A., ... & Tourangeau, R. (2013). Summary report of the AAPOR task force on non-probability sampling. *Journal of survey statistics and methodology*, *1*(2), 90-143.
- Brock-Utne, B. (2003). Formulating higher education policies in Africa: The pressure from external forces and the neoliberal agenda. *Journal of Higher Education in Africa/Revue de l'enseignement supérieur en Afrique*, 24-56.
- Buckland, R. (2009). Private and public sector models for strategies in universities. *British Journal of Management*, *20*(4), 524-536.
- Bukusi, A. D. M., Korir, A. J., & Musya, J. K. (2023). How indigenous leadership research in Africa can inspire national prosperity. *Open Journal of Social Sciences*, *11*(7), 134-155.
- Cloete, N. (2014). The South African higher education system: Performance and policy. *Studies in Higher Education*, *39*(8), 1355-1368.
- D'este, P., & Perkmann, M. (2011). Why do academics engage with industry? The entrepreneurial university and individual motivations. *The journal of technology transfer*, *36*, 316-339.
- Dampson, D. G., & Edwards, A. K. (2019). Strategic thinking, leadership and governance for African universities: Lessons from successful universities. *Strategic Management-a Dynamic View*, *7*(8), 1-19.
- Degn, L. (2015). Sensemaking, sensegiving and strategic management in Danish higher education. *Higher Education*, *69*, 901-913.

- Falqueto, J. M. Z., Hoffmann, V. E., Gomes, R. C., & Onoyama Mori, S. S. (2020). Strategic planning in higher education institutions: what are the stakeholders' roles in the process?. *Higher Education*, 79, 1039-1056.
- Farrant, J. H., & Afonso, L. M. (1997). Strategic planning in African universities: how relevant are Northern models?. *Higher Education Policy*, 10(1), 23-30.
- Farrant, J., & Fielden, J. (1996). Strategic planning in African universities. *New Papers on Higher Education*, 2.
- Garnett, A., Bevan-Dye, A. L., & De Klerk, N. (2011). Deliberate strategy and the tangible link to performance: Lessons from South African higher education.
- Gonzales, L. D., & Núñez, A. M. (2021). The ranking regime and the production of knowledge: Implications for academia. *Measuring up in higher education: How university rankings and league tables are re-shaping knowledge production in the global era*, 75-101.
- Hadji, M. J., & Osunkunle, O. (2020). The South African Higher Education Strategic Planning Process: Compliance or Shaping the Future. *African Journal of Development Studies*, 10(3).
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, 31(1), 2-24.
- Han, S., Zha, Q., & Xie, J. (2023). Understanding Chinese universities' strategic responses to the 'Double First-class' initiative and the potential outcome on higher education diversity: an exploratory study. *Studies in Higher Education*, 48(11), 1624-1638.
- Hassanien, M. A. (2017). Strategic planning in higher education, a need for innovative model. *Journal of Education, Society and Behavioural Science*, 23(2), 1-11.
- Hlengwa, D. C. (2014). The Challenges of Working and Studying at a Satellite Campus of a University: A Case of the Durban University of Technology. *Mediterranean Journal of Social Sciences*, 5(27), P2.
- Hong, M. (2020). A comparative study of the internationalization of higher education policy in Australia and China (2008–2015). *Studies in Higher Education*, 45(4), 768-779.
- Hu, J., Liu, H., Chen, Y., & Qin, J. (2018). Strategic planning and the stratification of Chinese higher education institutions. *International Journal of Educational Development*, 63, 36-43.

- Hunde, A. B., Yacob, E. T., Tadesse, G. A., Guesh, K., Gobaw, M. K., Dechassa, N., ... & Wondie, Y. (2023). Differentiating the Higher Education System of Ethiopia. A *National Study Report: Springer Nature*.
- Hutter, K., Nketia, B. A., & Füller, J. (2017). Falling short with participation—different effects of ideation, commenting, and evaluating behavior on open strategizing. *Long Range Planning*, 50(3), 355-370.
- Jalal, A., & Murray, A. (2019). Strategic planning for higher education: A novel model for a strategic planning process for higher education. *Journal of Higher Education Service Science and Management (JoHESSM)*, 2(2).
- Jarzabkowski, P., Lê, J. K., Seidl, D., & Vaara, E. (2025). Two decades of revolutionizing strategy research: How strategy-as-practice illuminates the complex, dynamic and consequential ways of doing strategy. *Academy of Management Collections*, 4(2), 55-76.
- Jowi, J. O. (2012). African universities in the global knowledge economy: The good and ugly of internationalization. *Journal of Marketing for Higher Education*, 22(1), 153-165.
- Kabui, C. A., Machuki, V. N., Yabs, J. K., & Njihia, J. M. (2018). Strategic planning process and performance of accredited universities in Kenya: The moderating effect of organizational characteristics. *DBA Africa Management Review*, 8(2).
- Knights, D., & Morgan, G. (1991). Corporate strategy, organizations, and subjectivity: A critique. *Organization studies*, 12(2), 251-273.
- Laine, P. M., & Vaara, E. (2015). Participation in strategy work. *Cambridge handbook of strategy as practice*, 616-631.
- Lynch*, R., & Baines, P. (2004). Strategy development in UK higher education: towards resource-based competitive advantages. *Journal of Higher Education Policy and Management*, 26(2), 171-187.
- Mack, D. Z., & Szulanski, G. (2017). Opening up: How centralization affects participation and inclusion in strategy making. *Long range planning*, 50(3), 385-396.
- Makoe, M. (2022). Resilient Leadership in Time of Crisis in Distance Education Institutions in Sub-Saharan Africa. In *Handbook of Open, Distance and Digital Education* (pp. 1-15). Singapore: Springer Nature Singapore.

- Malund, P. N., & Atwebembeire, J. (2024). Institutional planning and unintended consequences in public higher education institutions in Uganda. *International Journal of Management (IJM)*, 15(04), 102-112.
- Mantere, S., & Vaara, E. (2008). On the problem of participation in strategy: A critical discursive perspective. *Organization science*, 19(2), 341-358.
- Mintzberg, H., Ahlstrand, B., & Lampel, J. B. (1998). *Strategy safari*. Pearson UK.
- Morphew, C. C., Fumasoli, T., & Stensaker, B. (2018). Changing missions? How the strategic plans of research-intensive universities in Northern Europe and North America balance competing identities. *Studies in Higher Education*, 43(6), 1074-1088.
- Moshtari, M., & Safarpour, A. (2024). Challenges and strategies for the internationalization of higher education in low-income East African countries. *Higher Education*, 87(1), 89-109.
- Mudogo Mutula, S. (2012). Library automation in sub Saharan Africa: case study of the University of Botswana. *Program*, 46(3), 292-307.
- Mushemeza, E. D. (2016). Opportunities and Challenges of Academic Staff in Higher Education in Africa. *International Journal of Higher Education*, 5(3), 236-246.
- Muswaba, M. M., & Worku, Z. (2012). Strategic management of public Further Education and Training (FET) colleges in South Africa. *African Journal of Science, Technology, Innovation and Development*, 4(3), 147-170.
- Neave, G. (1985). Strategic planning, reform and governance in French higher education. *Studies in Higher Education*, 10(1), 7-20.
- Ngwana, T. F. A. (2002). Higher Education Strategic Planning in Sub-Saharan Africa. *A case Study of Cameroon Education Resource Information Centre, Referencing and Resource Facility*.
- Owolabi, S. A., & Makinde, O. G. (2012). The effects of strategic planning on corporate performance in university education: A study of Babcock University. *Arabian Journal of Business and Management Review (Kuwait Chapter)*, 2(4), 27-44.
- Parakhina, V., Godina, O., Boris, O., & Ushvitsky, L. (2017). Strategic management in universities as a factor of their global competitiveness. *International Journal of Educational Management*, 31(1), 62-75.

- Pisano, G. P., & Hitt, M. A. (2012). *The New Science of Strategic Management*. Harvard Business Review Press.
- Poister, T. H. (2010). The future of strategic planning in the public sector: Linking strategic management and performance. *Public administration review*, 70, s246-s254.
- Poole, D. (2001). Moving towards professionalism: The strategic management of international education activities at Australian universities and their Faculties of Business. *Higher education*, 42, 395-435.
- Risi, D., Vigneau, L., Bohn, S., & Wickert, C. (2023). Institutional theory-based research on corporate social responsibility: Bringing values back in. *International Journal of Management Reviews*, 25(1), 3-23.
- Rossouw, J. P. (2020). Developing a Faculty Research Culture in Higher Education: A South African Perspective. *Bulgarian Comparative Education Society*.
- Rudzki, R. E. (1995). The application of a strategic management model to the internationalization of higher education institutions. *Higher Education*, 29, 421-441.
- Saad, M., Zawdie, G., & Malairaja, C. (2008). The triple helix strategy for universities in developing countries: the experiences in Malaysia and Algeria. *Science and Public policy*, 35(6), 431-443.
- Sarstedt, M., Bengart, P., Shaltoni, A. M., & Lehmann, S. (2018). The use of sampling methods in advertising research: A gap between theory and practice. *International Journal of Advertising*, 37(4), 650-663.
- Scandura, A., & Iammarino, S. (2022). Academic engagement with industry: the role of research quality and experience. *The Journal of Technology Transfer*, 47(4), 1000-1036.
- Siegel, D. S., & Leih, S. (2018). Strategic management theory and universities: An overview of the Special Issue. *Strategic Organization*, 16(1), 6-11.
- Ssebuwufu, J., Ludwick, T., & Beland, M. (2012). Strengthening University-Industry Linkages in Africa. *A Study on Institutional Capacities and Gaps*. Association of African Universities.
- Teferra, D., & Altbachl, P. G. (2004). African higher education: Challenges for the 21st century. *Higher education*, 47, 21-50.
- Trilokekar, R., & Masri, A. E. (2016). Canada's international education strategy: Implications of a new policy landscape for synergy between government policy and institutional strategy. *Higher Education Policy*, 29, 539-563.

- Vaara, E., Rantakari, A., & Holstein, J. (2019). *Participation research and open strategy*. Loughborough University.
- Winton, B. G., & Sabol, M. A. (2022). A multi-group analysis of convenience samples: free, cheap, friendly, and fancy sources. *International Journal of Social Research Methodology*, 25(6), 861-876.
- World Education Statistics. (2024). World education statistics 2024. UNESCO Institute for Statistics. <https://uis.unesco.org/>
- Yin, R. K. (2009). *Case study research: Design and methods* (Vol. 5). sage.
- Yousef, W. (2024). The prevalence of internationalization of higher education in the Middle East and North Africa: challenges and opportunities. *Cogent Education*, 11(1), 2374688.

CHAPTER 2: STRATEGY-MAKING STUDIES ON MODERN AFRICAN HIGHER EDUCATION: A SYSTEMATIC REVIEW OF CHALLENGES AND OPPORTUNITIES¹²

Abstract

While strategy studies on African higher education are increasing, studies providing a comprehensive understanding from a strategy-making perspective are insufficient. Hence, this study aims to review the existing strategy studies on modern African higher education to provide a comprehensive understanding of the strategy-making perspective and to drive future research directions by presenting a research agenda. We employed the PESTLE framework to guide our analysis and develop a comprehensive perspective on strategy-making perspective contributions. Existing studies on modern African higher education are highly concentrated in South African, with an increasing number of publications in the last five years. Our findings show a significant research interest in the political and socio-cultural aspects of modern African higher education, highlighting neoliberal economic policy under globalization and internationalization, governance, decolonization, diversity factors, and leadership in African higher education institutions (HEIs). Studies on the economic and technological aspects of African higher education are also emerging as a potential area of research. Finally, we discuss a number of implications to support managers, policy decision-makers, and strategy practitioners in effective strategy-making for modern African HEIs.

Keywords: Modern African higher education, strategy-making, literature review, research synthesis

2.1 Introduction

In the 21st century—often described as the knowledge era (e.g. UNESCO 2005)—African higher education is widely recognized as a vital driver of modernization and development (Teferra & Altbach, 2004). Yet, since the turn of the millennium, it has confronted a set of unprecedented challenges. Neoliberal ideology associated with globalization, the internationalization of higher education, rapid technological advancement, and shifting relationships between higher education and the state have created both significant challenges and new opportunities (Cross et al., 2011; Jowi, 2012; Jooste & Hagenmeier, 2022; Steynberg et al., 2024; Alemu, 2024). Addressing these dynamics requires higher education managers, policy decision-makers, and strategy practitioners to engage in effective strategy-making.

¹ Under review at *Higher Education*

² Author: Zerihun Abera

Most recently, there have been several studies on strategy-making in African higher education, including strategic thinking, leadership, and governance for universities (Dampson & Edwards, 2019), strategic planning and its effects in universities (Garnett et al., 2011; Owolabi & Makinde, 2012; Kabui et al., 2018; Hadji & Osunkunle, 2020), the practice of strategic management in public colleges (Muswaba & Worku, 2012), and the internationalization strategies of African HEIs (Jowi, 2012; Alemu et al., 2024; Moshtari & Safarpour, 2024; Yousef, 2024). However, most of these studies have focused only on limited topics and specific organizational or national context, making it difficult to identify the challenges and opportunities in modern African higher education from a strategy-making perspective.

Two decades ago, only Teferra and Altbach (2004) attempted to provide a comprehensive overview of the challenges facing African HEIs. While they suggested the need to consider these challenges for proper planning and effective leadership in African higher education, they rarely identified the existing opportunities and discussed the practical implications for managers, policy decision-makers, and strategy practitioners in effective strategy-making for modern African HEIs.

On the other hand, studies have also reported lower educational service performance in African HEIs, including lower enrollment ratios (World Education Statistics, 2024) and lower contributions to global research outputs (Rossouw, 2020; Makoe, 2022; Bukusi et al., 2023; Malund & Atwebembeire, 2024), as well as lower publication rates in international academic journals (Cloete et al., 2015) and lower utilization of advanced educational technologies and digital libraries (Mudogo Mutula, 2012) by African universities. While these studies report descriptive secondary data signaling the low performance of African HEIs, they have not sufficiently examined the core strategic issues behind these challenges for higher education managers and policy decision-makers.

Thus, to the best of our knowledge, there are insufficient studies on the challenges and opportunities in African HEIs. This leads to a clear research question: "What are the challenges and opportunities?" While empirical studies have been conducted on African HEIs, there remains a lack of holistic perspectives that could aid higher education managers, policymakers, and strategy practitioners, especially considering the persistence of challenges and performance problems in African HEIs.

Building on prior studies (Teferra & Altbach, 2004; Jowi, 2012; Moshtari & Safarpour, 2024; Alemu et al., 2024), we aim to systematically review and synthesize studies on African higher education from a strategy-making perspective. The purpose of this study is

to review and synthesize existing literature to advance our understanding of strategy-making in modern African higher education. By identifying and presenting a research agenda, we provide future research directions to support effective strategy-making in modern African HEIs.

The contribution of this study is twofold for African HEIs. First, we contribute to the literature on African higher education by identifying future research agendas and enhancing future research directions in this area. Second, we provide practical implications for higher education managers, policy decision-makers, and strategy practitioners, enabling them to consider the challenges and opportunities in their strategy-making processes.

To address our research question, we conduct a systematic literature review of peer-reviewed studies on modern African higher education, as this enables us to synthesize the existing literature and provide a comprehensive understanding for strategic decision-makers in higher education. Following Page et al. (2021) and the updated PRISMA framework, we review existing African higher education studies from a strategy-making perspective using clearly defined inclusion and exclusion criteria.

To guide our review and provide future research directions, we employ the PESTLE framework-political, economic, socio-cultural, technological, legal, and environmental factors-which is an effective method for analyzing organizational challenges and opportunities (Vivek, 2022; Dalirazar & Sabzi, 2023). This framework is also widely used in strategic management studies to provide a comprehensive understanding of the existing literature (Hassanien, 2017; Bakoğlu et al., 2016). Thus, we employ it to analyze the strategy-making perspective in higher education and to identify future research needs in this area.

2.2 The overview of strategy-making practice in African HEIs

The application of strategy-making practices in African HEIs has a long history, dating back to the early 1990s when strategic planning emerged among African universities (Farrant & Fielden, 1996). The main objective of applying a strategic plan was to secure donor funds (Farrant & Afonso, 1997). However, it was suggested that the form of strategic planning should be different to fit the unique circumstances of African higher education compared to its Northern counterparts (Farrant & Fielden, 1996). Hence, an appropriate strategy-making models that fit local circumstances would be of vital importance and must be developed by African strategy practitioners (Farrant & Afonso, 1997).

In this regard, it was also argued that a framework for a local strategy of survival, growth, and adaptation in universities in Sub-Saharan Africa should be developed based on global, regional, and institutional realities (Brock-Utne, 2003; Ngwana, 2002). It was then suggested that African HEIs' strategy-making practices should consider both the local context and the complex, turbulent educational landscape (Muswaba & Worku, 2012). Consequently, as studies have also shown, many African universities have adopted strategic planning practices resembling a business model in an attempt to create certainty and remain competitive (Garnett et al., 2011; Kabui et al., 2018; Hadji & Osunkunle, 2020). While these studies strongly highlight the vital importance of applying strategy-making practices that consider both global and regional circumstances for African HEIs to remain competitive, they rarely address the unique challenges and opportunities or provide practical implications for African higher education managers, policy decision-makers, and strategy practitioners for effective implementation.

2.3 Research methods

2.3.1 Literature search

For our literature search and selection process, we employed the updated PRISMA framework (Page et al., 2021). First, we specified three key inclusion criteria in line with our research objectives to ensure that the selected articles were of high relevance and quality:

1. Articles should focus on strategy-making practices in modern African public higher education and were excluded if they solely focused on other sectors but referred to strategy-making in Africa.
2. Articles should include practical implications for the modern African higher education context, including managers, policymakers, and strategy practitioners.
3. Articles should include findings that align with at least one of the PESTLE framework factors: political, economic, socio-cultural, technological, legal, and environmental.

We further limited our selection to peer-reviewed publications written in English. Our search strategy covered both quantitative and qualitative studies. We focused on African public HEIs to provide a synthesis and comprehensive understanding, particularly for higher education managers, policy decision-makers, and strategy practitioners, and to drive future research directions in African higher education.

In addition, we included strategy-making practices to provide insights and guide our research question: "What are the challenges and opportunities?" To provide a

comprehensive understanding, we apply the strategy-making perspective to emphasize strategy as a dynamic and situated practice (Johnson et al., 2003)-the people who are actually engaged in the making (the process, activities, practices), who must be involved, and the external and organizational\institutional factors that influence its effectiveness (Hart, 1992; Jarzabkowski et al., 2016; Pretorius & Maritz, 2011).

Studies examining the challenges and opportunities of modern African higher education (Jowi, 2012; Mushemeza, 2016; Moshtari & Safarpour, 2024) were also included. However, these and other studies primarily focused on specific issues and organizational or national contexts, for instance, the internationalization of African higher education (Jowi, 2012; Moshtari & Safarpour, 2024), economic challenges faced by African higher education (Ali, 2024) and working and studying challenges at a satellite campus of a university (Hlengwa, 2014). As a result, studies providing a comprehensive understanding from a strategy-making perspective on the issue are insufficient.

Practical implications on “political” factors should advance our understanding of the influence of neoliberal economic policies due to globalization or internationalization, governance, partnerships, and the decolonization of African HEIs. “Economic” factors explain financial aspects, including funding sources and sustainability challenges in African HEIs. “Socio-cultural” factors cover leadership, diversity, culture, and practices in African HEIs. “Technological” factors focus on knowledge and technologies, including higher education talent management practices. “Legal” factors include government regulations, legislation, and other HEI-related legal issues. “Environmental” factors encompass elements such as pandemics and emergencies that may affect higher education operations.

Second, we defined a list of key terms to capture all relevant strategy studies in African higher education. The resulting search string combines both “African higher education institutions” and “strategic management” terms. Consequently, we searched for articles containing terms with different expressions present in the title, abstract, or keywords of articles: (“African higher education” OR “African tertiary education” OR “African universities”) (“African higher education institutions OR “African universities” OR “African tertiary education”) AND (“strategic management” OR “strategic planning” OR “strategy-making” OR “strategy implementation”).

All journal articles published in peer-reviewed sources before 2025 were covered in the initial literature search. We used electronic databases such as Web of Science, Scopus, and EBSCO. These three databases were selected for their standardized indexing protocols,

citation tracking functionality, and broad disciplinary coverage across education, management, policy, and development studies, which are critical for applying systematic review procedures aligned with the PRISMA guidelines. Their structured metadata and search functionalities also enable replicable search strategies and facilitate bibliometric cross-checking, ensuring methodological transparency and comparability with prior strategy-oriented higher education reviews. We acknowledge, however, that a substantial portion of research on African higher education is published in outlets not indexed by these databases, including regionally focused journals and repositories such as African Studies Library, AJOL, or BASE. To mitigate this limitation, we complemented our database searches with manual searches in Google Scholar and the reference lists of selected articles, and we included relevant peer-reviewed and grey literature when aligned with our inclusion criteria. This combined approach aimed to balance the methodological rigor of standardized indexing with the inclusion of locally grounded perspectives

2.3.2 Study records

Through our search of electronic databases, summarized in the PRISMA Flow Diagram in Figure 2, we initially identified 1,645 articles. After removing duplicates, 680 unique articles remained.

First, during the screening stage, titles and abstracts were evaluated based on the inclusion criteria set by the author. Articles (385) that did not have implications for our research objectives were excluded. Next, the author assessed the remaining 295 articles for eligibility based on the defined inclusion criteria. Then, a full-text review was conducted to evaluate their relevance to the research objectives and context. Finally, 53 articles remained in the final sample for review.

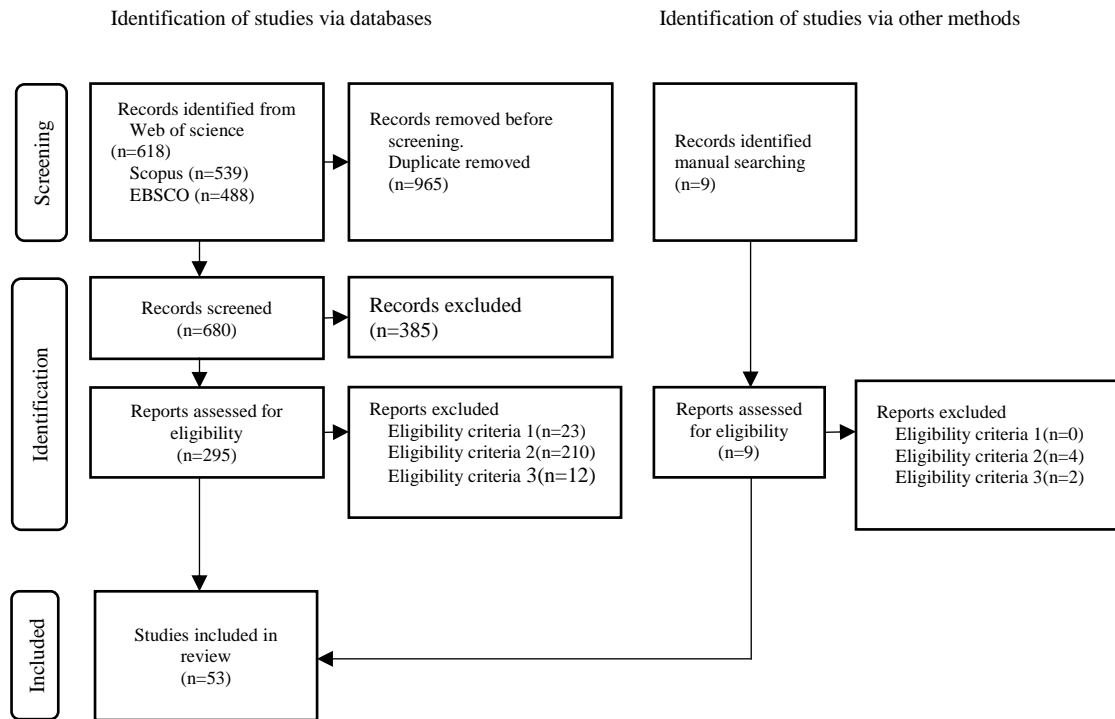


Figure 2. Summary of the literature search and inclusion process in the PRISMA Flow Diagram.

2.3.3 Synthesis of results

To begin the synthesis, the author first defined a standardized spreadsheet to collect descriptive information and analytical findings from the articles. Then, the author systematically extracted data based on the research question, country, theories and theoretical frameworks adopted, type of research, research design and methods, main findings, and practical implications. This stage was arguably the most intriguing part of the study, as it aimed to answer the research question.

Next, the extracted information was systematically compared, and its consistency across articles was verified. Based on this information, the author proceeded with the thematic analysis of the review sample.

To apply the themes, we first examined the country where each study was conducted and then inductively coded the findings into the PESTLE framework. We acknowledge that this approach is somewhat crude and presents certain challenges as some articles may engage with multiple PESTLE elements. However, as explained earlier, engaging with our pre-specified research question and the PESTLE dimensions is necessary to address the research objective.

The author reviewed all categories both inductively and deductively, based on a key PESTLE dimension and ensuring consistency between the "main findings" and "practical implications" provided in the review sample.

2.4 Results

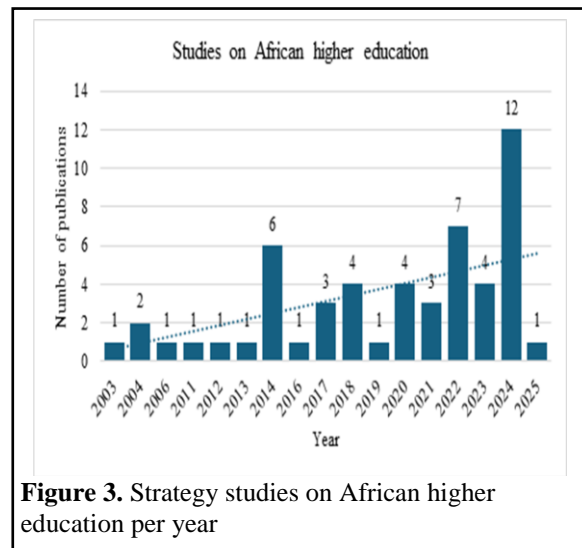
This section presents the analysis of the reviewed articles. First, we describe the overall distribution of studies across years and countries. Next, we examine the theoretical frameworks used in these studies and the methodologies applied. Finally, we provide a summary and description of all reviewed articles, categorized according to each PESTLE dimension.

2.3.3 Bibliographic details

Table 1 shows the distribution of studies on African higher education and the total number of studies. An overwhelming number of studies on African higher education come from South Africa, representing 57% of the final sample. A similar result was noted by Terfa et al. (2024), where most strategy studies in African context were conducted within the South African.

In contrast, we found no studies specifically focused on higher education in some African countries. Only a few studies were conducted in Kenya (2), Ethiopia (1), Gambia (1), Ghana (1), Tanzania (1), and Uganda (1). Meanwhile, 26% of the total final sample examined African higher education at a continental level, while 4% of these studies focused specifically on East and Sub-Saharan African HEIs.

Country	Number of studies	Percentage
South Africa	30	57%
Africa	14	26%
Kenya	2	4%
Ghana	1	2%
Three East African countries	1	2%
Tanzania	1	2%
Ethiopia	1	2%
Uganda	1	2%
Gambia	1	2%
Sub-Saharan Africa	1	2%
Grand Total	53	100%



As shown in Figure 3, there were only four studies (less than 7.6% of the total final sample) on African HEIs before 2010. Approximately two-fifths of the studies (43.4% of the total)

were published between 2010 and 2020. Notably, the number of studies has increased significantly in the last five years, with 16 studies (almost 51% of the total final sample) published during this period. This upward trend, traceable through the trend line, highlights the growing number of strategy-making studies on African higher education.

The most prevalent field of study in African higher education falls under the socio-cultural category, with 22 publications, representing 41.5% of the reviewed literature. In contrast, no articles were found in the legal or environmental categories, while only five articles each focused on economic and technological aspects. The political category accounted for 39.6% of the total sample, primarily addressing the challenges and opportunities of neoliberal economic policies in the context of globalization and internationalization of African higher education.

2.3.3 Theories and theoretical frameworks

In studies on African higher education, scholars have employed established theories from social sciences, business, and economics, as well as theoretical frameworks related to the internationalization of higher education. Some exploratory studies have been conducted without specifying a dedicated theoretical base.

Studies focusing on globalization and internationalization of higher education have predominantly adopted neoliberal ideology (Steynberg et al., 2024) and the internationalization framework/model (Alemu, 2014, 2024; Jowi, 2012; Cross et al., 2011; Jooste & Hagenmeier, 2022). Additionally, Mgaiwa (2021) employed human capital theory, while Oparinde et al. (2022) and Salawu & Moloji (2024) used the Quad-Helix Model and Triple Helix Model, respectively, to explain university-industry partnerships and the role of different stakeholders. Furthermore, Mwanzia Mulili (2014) suggested corporate governance theories as part of a combined theoretical framework for examining the corporate governance of HEIs.

In studies critiquing and reflecting on the decolonization of African higher education, Khosi & Vráblíková (2020) and Cordeiro-Rodrigues (2022) used decolonial theory and post-colonial perspectives. Similarly, Chinyamurindi (2023) adopted socio-cultural theory (SCT) to examine how students experience teaching and learning interventions and how these experiences are shaped by their environment.

For studies on leadership, diversity, and communities of practice (CoP), Chipunza & Matsumunyane (2018) used Victor Vroom's expectancy theory to examine faculty motivation, while Dullaart et al. (2023) adopted Fraser's theory of social justice to conceptualize parity of participation as a requirement for justice that enables equal social

participation. Matsepe et al. (2020) applied the theory of capital to explore key assets that enhance diversity and performance. Similarly, Setati et al. (2019) adopted Vroom's expectancy theory to analyze the relationship between employee appraisal, recognition, pay raises, and promotion. Woldegiorgis & Chiramba (2025) employed a social justice and resilience theory framework to understand and address challenges faced by historically disadvantaged students.

Similarly, Abiwu & Martins (2024) applied the knowledge-based view (KBV), considering knowledge as the most strategically significant resource for achieving sustainable university competitive advantages.

2.4.3 Methodologies

Table 2 presents the distribution of the selected articles based on their methodologies. Most of the studies are empirical (60% of the final sample, n=53), while conceptual articles make up the remaining 40%, focusing on major studies on African higher education. Among the empirical studies, the most used research designs were exploratory (n=19), explanatory (n=8), and descriptive (n=5). Similarly, conceptual studies primarily employed exploratory (n=19) and descriptive (n=2) research designs.

A variety of research methods were utilized in the empirical studies, including interviews (n=9), surveys (n=8), a combination of interviews and surveys (n=4), and a mix of interviews and focus group discussions (n=2). Additionally, one study combined surveys and focus group discussions, while another incorporated all three methods. The number of survey participants varied significantly, ranging from 70 managers (Chipunza & Matsumunyane, 2018) to 464 research leaders and team members (Owusu et al., 2017). Analytical techniques included regression analysis (e.g., Hlengwa, 2014; Abiwu & Martins, 2024; Ndlovu et al., 2018) and structural equation modeling (SEM) (e.g., Strydom & Fourie, 2018).

Furthermore, most conceptual studies employed established theories and theoretical frameworks to explore various aspects of African higher education, enriching the discourse on strategy-making practices within HEIs.

Table 2. The distribution of studies on African higher education based on their methodologies used

Methodologies	Number of studies	Percentage
Empirical studies	32	60%
Conceptual	21	40%
Qualitative	15	28%
Quantitative	10	19%
Mixed	7	13%
Exploratory	38	72%
Explanatory	8	15%
Descriptive	7	13%

2.4.4 Political

The strategic challenges of African higher education related to political issues, as shown in Table 3, focus on the influences and opportunities arising from globalization, higher education governance, and the decolonization of African education. With the growing influence of globalization, the discourse on the knowledge economy has become increasingly relevant in African HEIs, highlighting the importance of knowledge application within these institutions (Alemu, 2014). As a result, liberal and knowledge-based economic policies, along with internationalization, have gained traction and have prompted African governments to respond (Woldegiorgis & Doevenspeck, 2013). Consequently, as Cloete (2014) noted, African HEIs have demonstrated significant performance within the current knowledge economy policy framework. However, Steynberg et al. (2024) argued that in the context of South African higher education, neoliberal globalization has led to what they describe as modern academic slavery, driven by systemic exploitation and management misconduct.

In response, internationalization has emerged as a key opportunity for African universities (Jowi, 2012). Both staff and students can benefit directly from internationalization through cross-cultural exposure and experiences beyond their home countries (Cross et al., 2011). Moreover, Oparinde et al. (2022) highlighted that an effective internationalization strategy can improve academic quality by fostering collaboration and cross-pollination between international students and staff. To fully leverage internationalization, Alemu et al. (2024) suggested that African HEI faculty and staff should engage in both local and international research, teaching, and community service projects. However, for African HEIs to maximize the benefits of internationalization, similar to other developing countries, a

comprehensive policy framework is essential (Jooste & Hagenmeier, 2022; Moshtari & Safarpour, 2024).

Jowi (2022) also explored how the growing internationalization of African higher education is driving the expansion of higher education partnerships. In line with this, Mgaiwa (2021) emphasized that university-industry partnerships are critical for HEIs in the emerging global knowledge economy. To enhance such partnerships, Oparinde et al. (2022) advocated for the adoption of the quad-helix and ecosystem partnership models, which they deemed crucial for African HEIs. Additionally, Salawu and Moloji (2024) argued that African universities need to embrace the Fourth Industrial Revolution (4IR) to strengthen university-industry partnerships. However, they also noted that 4IR requires universities to implement specific curricula and guidance to meet its demands. In this context, Mgaiwa (2021) recommended that both governments and universities undergo transformation to better link academic institutions to industry.

From a political perspective, Brock-Utne (2003), after analyzing higher education policies in Sub-Saharan Africa by the World Bank, agreed with other African researchers that teaching in African HEIs has been historically shaped by cultural impositions resulting from colonial and neo-colonial interventions. Therefore, to shape the future of African HEIs, it is essential for the thoughts and practices within these institutions to be rooted in African contexts, requiring decolonization (Msila, 2021). Khosi and Vráblíková (2020) explored how critical reflection on the visibility and viability of decolonial thinking and practices within educational institutions could support this process. Furthermore, Chinyamurindi (2023) suggested that decolonizing the African higher education curriculum is necessary to improve its teaching. Faculty can also use tacit knowledge and epistemic disobedience, building upon a colonized curriculum, to integrate indigenous African knowledge into the system (Johnson & Mbah, 2024). In summary, higher education managers, students, educators, and scholars can play a key role in the decolonization of African education.

From a governance perspective, existing research highlights several challenges faced by African HEIs. Malund and Atwebembeire (2024) indicated that the planning in African HEIs is often influenced by government ideologies and policies, which presents challenges in driving institutional mandates. As Mwanzia Mulili (2014) found, resistance to change is common, and cultural factors also contribute to governance challenges in HEIs. Additionally, Mofolo and Novukela (2024) revealed that delays in adopting performance management systems, alongside strategic planning issues, significantly hinder the effectiveness of strategy-making processes in HEIs.

Table 3. Key features of studies with political focus

Author(s) (Year)	Country	Theme	Type of paper	RP	RD	Method	Finding(s)	Practical implication(s)
Alemu (2014)	African HEIs	Globalization	Conc.	n/a	Explo.	Framework adoption	The discourse of knowledge economy had become socially relevant and knowledge application in HEIs.	Indigenous knowledge and external knowledge harmonization help African academics to respond to their unique socioeconomic challenges in the process of internationalization
Alemu et al. (2024)	Ethiopia	Globalization	Conc.	n/a	Explo.	Framework adoption	Public universities in Ethiopia have benefited greatly from the globalization of higher education	Faculty and staff need to be involved in local and international research, teaching and community service projects
Brock-Utne (2003)	Sub-Saharan Africa	Decolonizing	Conc.	n/a	Explo.	DA	African teaching has been accompanied by cultural imposition rooted in colonial and neo-colonial interventions. Therefore, nurturing local knowledge development is needed	Developing national policies of higher education rooted in Africa and local knowledge development are greatly needed in HEIs
Chinyamurindi (2023)	South Africa	Decolonizing	Emp.	Quali.	Explo.	Interview (n=30)	Decolonizing the curriculum can improve teaching within the higher education	Informs a wider audience, caution should be exercised given the focused nature of the study
Cloete (2014)	South Africa	Globalization	Emp.	Quanti.	Descr.	SDA	African HEIs show a significant performance toward emerging knowledge economy	HEIs research advocacy and network enable African universities actively participate in global knowledge economy and society
Cross et al. (2011)	South Africa	Globalization	Conc.	n/a	Explo.	Framework adoption	Internationalization emerged as an outward looking for both staff and students to benefit from direct cross-cultural exposure and experience of the outside world	A cohesive and systematic policy framework could benefit the internationalization strategies in many universities
Johnson & Mbah (2024)	Gambia	Decolonizing	Emp.	Quali.	Explo.	Interview (n=28)	The use of tacit knowledge and epistemic disobedience that faculty were able to build upon a colonized curriculum that denied the presence of other knowledge	University faculty and managers can contribute to decolonization and foster sustainable development
Jooste & Hagenmeier (2022)	South Africa	Globalization	Conc.	n/a	Explo.	Policy analysis	A comprehensive policy framework for internationalization alike with developing countries was required for African HEIs.	Suggested, the policy framework should address the entrenched principles that could be applied timely.
Jowi (2012)	African Universities	Globalization	Conc.	n/a	Explo.	Framework adoption	A mid of uncertainty and increasingly competitive knowledge society and global higher education market, internationalization emerged as potential for African universities.	Active involvement of university faculty, staff and students can help to leverage the opportunities university internationalization.
Jowi (2022)	Africa	Globalization	Conc.	n/a	Explo.	n/a	Highlights the impacts of academic partnerships with a focus on research, postgraduate training, mobility and some new intra-African initiatives.	Proposing some possible approaches and alternatives that could be used for redress
Khosi & Vrábliková (2020)	South Africa	Decolonizing	Conc.	n/a	Explo.	Adopting theory	Engaging in the Decolonial Reading Salon enables us to critically reflect on the visibility and viability of decolonial thinking and practice inside educational institutions	Individual administrators, students, educators, and scholars, make decolonial thought and practice possible in HEIs
Malund & Atwebembeire (2024)	Uganda	Governance	Emp.	Quali.	Descr.	Desk research	Inadequate training of the administrators, planning based on government ideology and policies, high financial dependence and inadequate releases of resources to drive institutional mandates.	It is imperative to periodically evaluate all decisions made during the planning process to come up with probably risk misting measures in HEIs.
Mgaiwa (2021)	African HEIs	Globalization	Conc.	n/a	Explo.	Theory adoption	University-industry partnership of HEIs is essential in the emerging global knowledge economy	Transforming government and universities could help their management system to link universities to industry
Mofolo & Novukela (2024)	South Africa	Governance	Conc.	n/a	Explo.	DA	The adoptions of performance management system were delayed and affected effective strategy making process	Consistent application of university policies could create shared goals and encourage excellent performance in HEIs
Moshtari & Safarpoor (2024)	Three East African countries	Globalization	Emp.	Quali.	Explo.	Interview (n=10)	Lack of clear policies and guidelines; the inefficiency of the organizational structure of internationalization; financial, infrastructure, and equipment problems; weaknesses in scientific, skill, and language competences; cultural differences; non-reciprocal relationships; and a brain drain are the challenges of internationalization	Developing internal strategies, policies, plans, and organizational structures of HEIs to respond to the challenges
Msila (2021)	South Africa	Decolonizing education	Emp.	Quali.	Explo.	Interview (n=8) & FGD (n=2x4)	At present in Africa, it is the age of digital transformation and decolonization. Thus, it is critical for digitalization to be combined with decolonization, education can be a tool for liberation and achievement where the digital divide is minimized.	African University need to digitization leadership and decolonize its education to build futures
Mwanzia Mulili (2014)	Kenya	Governance	Emp.	Quali.	Explo.	Interview (n=15)	Decision making guided by the government policies was among the governance challenges in public universities, hence, there would be resistance to such change	Similar strategies could be adopted by similar institutions in developing countries to help for better governance
Oparinde et al. (2022)	African HEIs	Globalization	Conc.	n/a	Descr.	Desk research	The concept of internationalization benefits HEIs in improving academic quality through crosspollination and collaboration of international students and staff	Adopting quad-helix and eco-system partnership for HEIs can bring about effective internationalization strategy
Salawu & Moloi (2024)	South Africa	Globalization	Emp.	Quanti.	Descr.	Survey (n=70)	HEIs implemented the specific guidance and curriculum to meet the need for the fourth industrial revolution (4IR) through a university-industry partnership activities.	4IR strategy should be aligned with the HEIs system to meet industry demands.
Steynberg et al. (2024)	South Africa	Governance	Conc.	n/a	Explo.	Adopting theory	A neoliberal globalization has led to modern academic slavery in a South African HEI resulting from systemic exploitation and management misconduct.	Ethical leadership and a culture of inquiry help to combat modern academic slavery in HEIs
Woldegiorgis & Doeverspeck, 2013	Africa	Globalization	Conc.	n/a	Descr.	DA	The popularity of liberal and knowledge-based economy and internationalization has pushed African governments to respond.	Re-positioning and re-alignment of HEIs could play significant in African societies.

RP = research paradigm; RD = research design; Emp. = empirical, Quant. = quantitative; Quali. = qualitative; MM = mixed methods; Descr. = descriptive; Expla. = explanatory; Explo. = exploratory; SDA = Secondary data analysis; DA= Document analysis; LA = literature analysis.

2.4.5 Economic

The economic focus of African HEIs research primarily addresses funding challenges and the need for effective revenue generation strategies, as depicted in Table 4. A review by Ali (2024) highlighted that African HEIs have been grappling with significant economic challenges, often seeking external solutions to address them. Teferra and Altbach (2004) also affirmed that Sub-Saharan African universities have long been reliant on external funding from organizations like the World Bank, the International Monetary Fund, and other donor agencies to support their teaching and research activities. However, they discussed that it was one of the major challenges in African HEIs. Crowther et al. (2018) further explored the increasing difficulty of balancing income and expenses, making it challenging for HEIs to maintain financial viability as academic units.

Several studies have proposed potential solutions to the economic challenges faced by African HEIs. The World Bank policy emphasized the diversification of funding sources and cost-sharing in Sub-Saharan HEIs, and, as Sawyerr (2004) noted, African universities were pressured to develop strategies focusing on income generation. Consequently, Ngcobo et al. (2024) and Ali (2024) suggested that diversified revenue sources-such as offering new courses, fostering international collaborations, and forming industrial partnerships-could help address the financial challenges of universities. However, despite these suggestions, no studies have demonstrated the effectiveness of African higher education in generating sustainable incomes. As a result, the viability of the proposed revenue sources in the context of African higher education remains unproven.

Table 4. Key features of studies with economic focus

Author(s) (Year)	Country	Theme	Type of paper	RP	RD	Method	Finding(s)	Practical implication(s)
Ali (2024)	African HEIs	Financial	Conc.	n/a	Explo.	Descr.	African HEIs have been facing economic challenges in which external solutions are sought	Advocating equitable funding distribution, diversified funding sources, and enhanced financial accessibility for students may solve HEIs financial challenge
Crowther et al. (2018)	Africa	Financial	Emp.	Quali.	Explo.	Interview (n= six hotel schools)	In HEIs, it is increasingly challenging to balance its income and expenses and, consequently, to function as a financially viable academic unit	There should be innovative ways to implement curricula and maintain facilities as cost effectively as possible without compromising the quality and effectiveness of its offerings
Ngcobo et al. (2024)	South Africa	Financial	Emp.	Quanti.	Expla.	Survey (n=215)	Revenue generation strategies will be inadequate if it is a single sourcing	Diversified revenue sources i . e offering new courses, international collaborations and industrial partnerships can solve university financial challenge
Sawyer (2004)	African Universities	Financial	Conc.	n/a	Explo.	Framework adoption	Africa's universities were compelled to develop strategies focusing on income generation	Systems-level policy frameworks were needed to maintain the irreducibility state role to make higher education to focus on public purpose
Teferra & Altbachl (2004)	African countries	Financial	Conc.	n/a	Explo.	DA	Funding is one of the major challenges in African HEIs	Recognition of the existing problems can lead to positive solutions with proper planning and effective leadership

RP = research paradigm; RD = research design; Emp. = empirical, Quanti. = quantitative; Quali. = qualitative; MM = mixed methods; Descr. = descriptive; Expla. = explanatory; Explo. = exploratory; SDA = Secondary data analysis; DA= Document analysis; LA = literature analysis.

2.4.6 Socio-cultural

The socio-cultural aspect of studies on African higher education examine diversity, cultural practices, leadership factors, and communities of practice (CoP), as shown in Table 5. Of the studies reviewed, 12 focus on diversity and cultural/practice factors, 9 examine leadership factors, and 2 focus on CoP. Studies by Kerret et al. (2017) revealed that racial inequalities, such as students' socioeconomic status, have persisted even in the post-Apartheid period in public South African universities. Similarly, Matsepe et al. (2020) explored how the race issue has shifted to social class, particularly the exclusion of marginalized groups, such as those from under-resourced townships and rural schools. In line with this, Woldegiorgis and Chiramba (2025) demonstrated that disadvantaged students face discrimination when accessing education due to their financial status.

Further, Moletsane (2023) highlighted how unequal gender norms marginalize certain groups, such as girls and young women, in South African HEIs. A similar trend was observed in Ghanaian HEIs, where gender disparities persist, particularly in some faculties, as noted by Quarshie et al. (2023). This finding aligns with Shackleton et al. (2006), who documented the lowest proportion of female students in the Engineering Faculty of South African universities.

From a practical perspective, studies also show that Africa's predominantly young population contributes to the effective management of diversity in HEIs, impacting employee performance and strategic outcomes. In a survey of 258 employees, Setati et al. (2019) found that gender and ethnic diversity were positively and significantly related to employee performance. However, this finding contrasts with Strydom and Fourie's (2018) study, which, using similar research methods and national context, revealed a negative relationship between diversity factors and effective strategy implementation. They acknowledged that this deviation might be due to the homogeneity of the sample, as the participants shared similar ethnic backgrounds. Therefore, the generalizability of this result should be approached with caution, as it may vary with a more diverse sample.

Additionally, studies have shown that African higher education practices and cultures provide opportunities for growth and development. Udeh et al. (2024) noted that empowering Africa's younger generation fosters educational, vocational, and community engagement outcomes. In terms of benchmarking practices by HEIs, Odora (2014) surveyed higher education lecturers and found that most agreed that internal benchmarking could facilitate organizational transformation in HEIs. Fussy (2024) conducted interviews with 29 participants from four Tanzanian universities to explore their experiences,

practices, and perspectives regarding research culture development. The findings indicated that fostering a research culture could promote critical thinking and help universities achieve research quality, thus supporting the achievement of university strategies.

A large group of studies focusing on the socio-cultural aspect also examined two facets of leadership in African HEIs-challenges and opportunities. Regarding the challenges, Odhiambo (2014) identified leadership development as a significant problem within the highly complex political, economic, and cultural landscapes of African HEIs. For example, in creating a unified university culture through integration, the lack of leadership and strategic direction is a challenge (Hlengwa, 2014). Similarly, Jansen van Vuuren et al. (2022) noted that organizational culture, the role of women in leadership, and the inclusion of millennials in leadership roles and diversity are factors influencing effective leadership in HEIs.

On the other hand, leadership studies also indicated various opportunities important for African higher education. Chipunza and Matsumunyane (2018) demonstrated a positive relationship between transformational leadership and employee intrinsic motivation, while transactional leadership negatively affected employee extrinsic motivation. Ndlovu et al. (2018) found a positive relationship between transformational leadership and employee affective commitment, though this relationship may vary across different institutions and settings. For instance, in HEIs, a participatory leadership style is favored to strengthen the relationship between support and academic staff in strategy-making (Asoba & Mefi, 2022). Owusu et al. (2017) also noted that academicians and research leaders have increasingly preferred participative leadership styles to develop research leadership in African institutions. Moreover, contemporary youth leadership development strategies and programs in Africa may present an opportunity to replace the ineffective ruling class in HEIs with youth leaders (Strong & Kallon Kelly, 2022). To achieve this transformation, indigenous leadership research should be a critical focus and strategy (Bukusi et al., 2023). Finally, research has shown how communities of practice (CoP) contribute to effective transformational planning in HEIs. By harnessing diverse personal and disciplinary perspectives through storytelling, reading, writing, and reflection, Dullaart et al. (2023) demonstrated that CoP can support effective transformational plans. Additionally, by empowering both lecturers and students to create knowledge within time constraints and workload demands, as noted by Erasmus et al. (2022), CoP can help departments share best practices.

Table 5. Key features of studies with socio-cultural focus

Author(s) (Year)	Country	Theme	Type of paper	RP	RD	Method	Finding(s)	Practical implication(s)
Asoba & Mefi (2022)	South Africa	Leadership	Emp.	Quali.	Explo.	Interview (n=13)	There is a strong complementary relationship between support staff and academic staff in the strategy-making of HEIs.	The management of higher education institutions should be holistic in participating in supportive staff in strategy matters
Bukusi et al. (2023)	Africa	Leadership	Conc.	n/a	Explo.	Theory adoption	Indigenous leadership research is a critical center and strategy to achieve pragmatic national transformation.	Leadership centers should be established, and design of leadership training programmes should include local knowledge and success methods
Chipunza & Matsumunyane (2018)	South Africa	Leadership	Emp.	Quanti.	Expla.	Survey (n =70)	There is a positive relationship between transformational leadership and intrinsic motivation, while negative correlation between instrumental motivation and transactional leadership style	Motivation sources could be used in recruitment and leadership development decisions at HEIs.
Dullaart et al. (2023)	South Africa	Community of practice	Conc.	n/a	Explo.	Adopting theory	CoP practices harnessing diverse personal and disciplinary perspectives through storytelling, reading, writing and reflecting for transformational plan.	Recognition and representation of marginalized voices and interdisciplinary conversations could help effective transformation plan.
Erasmus et al. (2022)	South Africa	Community of practice	Conc.	n/a	n/a	Appreciative inquiry method	Community practice (CoP) empowers both lecturers and students to create knowledge within the ambit of time constraints and workload demands.	Adopting different forums, websites, Facebook sites and Zoom link of CoP could help to share best practices in a free and open way in HEIs.
Fussy (2024)	Tanzania	Research culture	Emp.	Quali.	Explo.	Interview (n=29)	Research culture could foster robust research by making research critical thinkers, researchers, educators and learners.	Prioritizing an equitable, transparent and inclusive research culture for academics can help university strategies to achieve research quality
Hlengwa, 2014	South Africa	Leadership	Emp.	Mix.	Expla.	Interview(n=36) & regression (n= 362)	Lack of leadership and strategic direction, diverse cultures and inequitable distribution of resources may challenge the university satellite campus	Creating one university culture and integration of satellite campus and main university for resources can help to deliver quality services.
Jansen van Vuuren et al. (2022)	South Africa	Leadership	Emp.	Quali.	Expla.	Interview (n=24)	Organizational culture, the role of women in leadership, and the role of millennials in leadership and diversity influence effective leadership in HEIs	Enabling university environment can help effective leadership in HEIs
Kerr et al. (2017)	South Africa	Diversity	Emp.	Quanti.	Expla.	SDA	Racial inequalities like students' socioeconomic status sustained even post-Apartheid period in public universities of South Africa	Policy discussions are required for the desirability of affirmative action
Matsepe et al. (2020)	South Africa	Diversity	Emp.	Quali.	Explo.	DA & interview	Race problem has been shifted to social class due to the exclusion or marginalized group particularly those from under resourced township and rural schools in HEIs in South Africa	Embracing affirmative action is required to address the social imbalance
Moletsane (2023)	South Africa	Diversity	Emp.	Quali.	Explo.	Photovoice	Unequal gender norms marginalized some group (e.g. girls and young women) in HEIs	Those girls and young women marginalized must inform to address the issue effectively and sustainably.
Ndlovu et al. (2018)	South Africa	Leadership	Emp.	Quanti.	Expla.	Survey (n = 260)	There is a positive relationship between transformational leadership style and affective commitment which might vary in different institutions and settings	A transformational leadership style could enhance the commitment for both academic and non-academic staff members in HEIs.
Odhambo (2014)	Kenya	Leadership	Con.	n/a	Explo.	SDA	Leadership development is one of the current problems in HEIs.	There should a new leadership development model in highly complex political, economic and cultural landscapes bey Kenyan HEIs
Odora (2014)	South Africa	Practice	Emp.	Quanti.	Expla.	Survey (n =62)	Majority of the lecturers agreed that benchmarking offer could help organizational transformation in HEIs	Benchmarking works well when it is used by internal group to solve organizational problem
Owusu et al. (2017)	Africa institutes	Leadership	Emp.	Mix.	Explo.	Survey (N=464) and 2 FGDs	Academicians and research leaders started preferring people/relationship orientated' and 'democratic/participative' leadership style in HEIs	Formal leadership development opportunity more help to develop research leadership in African institutions
Quarshie et al. (2023)	Ghana	Diversity	Emp.	Mix.	Explo.	SDA, interview (n=78) & 7 FGDs	Gender disparities continued to exist in HEIs, specifically wide disparities in some faculties	Adopting the key role female role models can improve gender disparities.
Setati et al. (2019)	South Africa	Diversity	Emp.	Quanti.	Expla.	Survey (n = 258)	Gender diversity and ethnic diversity are positively and significantly related to employee performance	Adopting effective diversity management programmes are required to be inclusive in HEIs
Shackleton et al. (2006)	South Africa	Diversity	Emp.	Quali.	Explo.	DA & interview	The proportion of women students were the lowest in the Engineering Faculty	Developmental programmes may be required to change the problem in the gender climate.
Strong & Kelly (2022)	African Universities	Leadership	Emp.	Mix.	Desc.	Survey (n = 240), interview w (n=39) and 2 FGD	Contemporary African youth leadership development strategies and programmes emerged as a potential that sought out to be demonstrated by African university youth leaders	Continuing adoption of the leadership development strategies and programmes would likely replace the ineffective ruling class in African HEIs
Strydom & Fourie (2018)	South Africa	Diversity	Emp.	Quanti.	Expla.	Structural equation modeling (n= 266)	There is a negative relationship between diversity factors and effective strategy implementation	Linking diversity management practice to its institutional goals can help effective strategy implementation in university
Udeh et al. (2024)	Africa	Diversity	Conc.	n/a	Explo.	Comparative analysis	African youth empowerment programs have triumphed in fostering educational, vocational, and community engagement outcomes	The integration of African models into U.S. youth programs, community-centric approaches, entrepreneurship, and technological integration.
Woldegiorgis & Chiramba (2025)	South Africa	Diversity	Emp.	Quali.	Explo.	Interview(n=34)	Disadvantaged students were discriminated against when accessing education due to their financial status in universities	Universities must develop an inclusive curriculum to actively support disadvantaged students both academically and socially.

RP = research paradigm; RD = research design; Emp. = empirical, Quant. = quantitative; Quali. = qualitative; MM = mixed methods; Descr. = descriptive; Expla. = explanatory; Explo. = exploratory; SDA = Secondary data analysis; DA= Document analysis; LA = literature analysis

2.4.7 Technological

Technological research in African higher education aims to provide insights into the capabilities of African HEIs, particularly through the development and retention of talent. As depicted in Table 6, five studies address talent management practices in African HEIs. While the first two empirical studies examine the relationship between talent management and organizational outcomes, the other three articles focus on its connection to human resource management practices within HEIs. Based on a survey of 265 employees, Abiwu and Martins (2024) found that talent management practices are positively related to sustainable competitive advantages at HEIs. Similarly, Musakuro (2022) showed that talent retention positively contributes to university visions and missions, and that talent management practices could help sustain the competitive advantage of public universities. In both cases, it is clear that talent management practices in African HEIs positively influence its competitive advantages.

For HEIs to meet their human capital requirements and achieve their objectives, human resource management and talent management practices must be integrated, as failure to do so can negatively impact employee retention. For example, Barkhuizen et al. (2020) found that compensation, recognition, and institutional practices have the largest effect on employees' intention to quit their jobs. Additionally, Mushemeza (2016) discussed how productive research is possible when universities recruit, train, and retain quality academic staff. Furthermore, when talent management practices are not aligned with the HEIs' requirements and objectives, as also noted by Musakuro and De Klerk (2021), human resource management practices can negatively affect talent management. However, no studies were found, specifically, to demonstrate the integration of human resource and talent management practices to drive competitive advantages in universities.

Table 6. Key features of studies with technological focus

Author(s) (Year)	Country	Theme	Type of paper	RP	RD	Method	Finding(s)	Practical implication(s)
Abiwu & Martins (2024)	South Africa	Talent management	Emp.	Quanti.	Expla.	Survey (n=265)	Integrated TM practices (i.e. talent attraction, development and retention) are positively related to sustainable competitive advantages at HEIs.	Integrated talent management could help to improve competitive advantage by shaping the policy-making process in HEIs
Barkhuizen et al. (2020)	South Africa	Talent management	Emp.	Mix.	Expla.	Survey (n=117) Interview (n=23)	Compensation and recognition and institutional practices had the largest effect on employees' intention to quit their jobs	HEIs should redevelop talent management practices with regard to its HR practices to cater for the diverse needs of academic staff
Musakuro & De Klerk (2021)	South Africa	Talent management	Emp.	Quali.	Expla.	Interview (n=14)	HRM practices were negatively affecting the talent management practices of the selected HEI	HEIs need to customize its current talent management practices suit to its requirements and aims
Musakuro (2022)	South Africa	Talent management	Emp.	Mix.	Expla.	Survey (n = 153) & interviews (n = 7)	Talent retention positively contributes to university visions and missions' achievements by revitalizing its strategic approach in universities	Talent management practice could help to sustain public universities' competitive advantage
Mushemeza (2016)	Africa	Talent management	Conc.	n/a	Expla.	SDA	Productive research is possible when the university recruits, trains and retains quality of academic staff.	Attention will have to be paid on: professional mechanisms of recruitment, appointment and promotion, welfare of academic staff

RP = research paradigm; RD = research design; Emp. = empirical, Quant. = quantitative; Quali. = qualitative; MM = mixed methods; Descr. = descriptive; Expla. = explanatory; Expla. = exploratory; SDA = Secondary data analysis; DA= Document analysis; LA = literature analysis.

2.5 Discussion

Our review of existing strategy studies on modern African higher education reveals an uneven distribution of literature across PESTLE categories. While the majority of studies focus on socio-cultural and political aspects, fewer articles address economic or technological factors.

From a political and socio-cultural perspective, the growing knowledge-based economy, the internationalization of higher education, the diverse composition of student populations, and the increasing number of leadership programs and initiatives are the factors that contribute to the improvement of strategy-making in African HEIs. These dynamics create opportunities for innovation and growth in HEIs. However, external interventions in African higher education, government neoliberal economic policies, and governance structures present significant threats to the effective strategy-making process in African HEIs. Research by Brock-Utne (2003) and Malund and Atwebembeire (2024) underscores these challenges. Nonetheless, a commitment to decolonizing thoughts, practices, and curricula within African HEIs, along with adopting effective governance mechanisms, can reduce the risks associated with strategy-making in the sector.

Moreover, diversity factors have both positive and negative impacts at the individual and organizational levels (Setati et al., 2019; Strydom and Fourie, 2018). Africa's most valuable resource is its young generation who are more intelligent, eager to learn, and open to strategic change. If they receive quality education and are equipped with high-level skills and competencies relevant to the local needs of their respective countries, they will become the central drivers of the continent's development (Makoe, 2022). They have the potential to generate innovative solutions for economic and social challenges and help effective strategy-making in modern African higher education (Strong & Kelly, 2022).

Research on the economic aspects of African higher education emphasizes the financial challenges facing HEIs. Many institutions rely heavily on external donors, with limited access to public funding to finance higher education and research projects. However, reliance on external donor funds is increasingly questioned for its sustainability (Ali, 2024; Crowther et al., 2018). The complexity of this funding is compounded by potential rejection of funding proposals due to political factors in the donor's home country or diplomatic relations between countries (Mushemeza, 2016; Cox & Trotter, 2017). Additionally, public funding for higher education has dwindled in recent years, with

uncertainty surrounding government decisions regarding financial support (Ngcobo et al., 2024).

The complementarity effects of human resource management and talent management practices, as observed in technological studies (Abiwu & Martins, 2024; Musakuro & De Klerk, 2021), suggest that an integrated strategy could benefit African HEIs. However, the heavy reliance on one practice over the other may introduce risks. For example, Musakuro and De Klerk (2021) found that human resource management practices were negatively affecting talent management in HEIs where there was a high turnover rate among academic staff. This highlights the importance of a balanced approach.

2.5.1 Directions for future research

To advance a comprehensive understanding of strategy-making perspective in African HEIs, we identified key directions for future research based on the PESTLE analysis, including governance, university collaborations, industry partnerships, diversification of revenue sources, talent management practices, African indigenous leadership and management practices, and African higher education networking.

To evaluate higher education governance in the ongoing higher education-state relationship of African HEIs from a strategy-making perspective, the current research on the political and socio-cultural dimensions is insufficient to fully assess the modern African higher education-state relationship. Therefore, further exploration of African higher education governance is needed to guide strategic decisions. From an economic perspective, additional research is needed to evaluate how university-industry partnerships can become viable revenue sources to address financial challenges. Specifically, further practical implications are required to assess the effectiveness of university-industry partnership strategies for academic commercialization. For example, research leaders should examine the potential benefits of academic engagements with industry (e.g., contract research, joint research, consultancy, spin-offs, etc.). Similarly, the lack of practical guidance on how university human resource management and talent management practices should be integrated to drive sustainable competitive advantages in the technological dimension warrants further research. This research should assess how university leaders can adapt existing talent management practices to meet the specific requirements and goals of HEIs.

Additionally, building on political research, a deeper understanding of African indigenous leadership and management practices, along with African higher education networking, is crucial to evaluating the decolonization of African education. This will broaden critical reflection on the issue and examine the interdependencies between African institutions and their scholars.

First, *African higher education governance*: Additional research is needed to understand how African higher education governance will evolve in the ongoing higher education-state relationship. Previous studies have highlighted that government ideology and policies pose challenges for modern African higher education in fulfilling their institutional mandates (Malund & Atwebembeire, 2024; Steynberg et al., 2024; Mwanzia Mulili, 2014). Therefore, it is important to explore how the higher education-state governance relationship can be improved by adopting effective mechanisms for better governance. Building on the empirical study of Mwanzia Mulili (2014), there is a need to theorize about the governance of public universities, incorporating the stakeholder theory of corporate governance, alongside elements of political, managerial hegemony, and resource dependency theories. This approach would enable HEIs to adopt a combined framework for corporate governance, focusing on stakeholder representation, university council formation and structure, required governance skills, management boards, financial disclosures, auditing, and performance contracts between council and staff. These mechanisms would provide a better understanding of the practical implications of different higher education governance structures.

Second, *diversification of revenue sources and university-industry partnerships*: Previous studies have suggested that African HEIs diversify their revenue sources through international collaborations and industrial partnerships to address financial challenges (Ngcobo et al., 2024). However, little is known about the viability of various university-industry partnership models for generating sustainable income in the African context. The quad-helix model and triple helix model, for instance, could provide an avenue for future research to examine university-industry partnerships, as well as the role of government in fostering effective collaboration and research commercialization (Oparinde et al., 2022; Salawu & Moloi, 2024). Existing literature primarily focuses on public and donor sources of funding for African universities (Sawyerr, 2004; Moshtari & Safarpour, 2024) and the risks of relying on a single revenue source (Ngcobo et al., 2024). However, further research is needed to explore how African higher education internationalization, international collaborations, and public-private partnerships can help secure sustainable income. A

future work would also benefit from investigating how neoliberal competitive logics affect institutional partnerships and staff-wellbeing and whether alternative models of cooperation could enhance both funding strategies and academic productivity across African higher education institutions.

Most studies on African university collaborations and partnerships have been general, without specifically examining the financial sustainability of such collaborations. Reliance on external donors in African higher education is often questioned for its unsustainability and complexity. For instance, Cloete et al. (2015) showed that a large portion of research funding comes from donors, who often prioritize reporting over academic publications and impose their own programs and ideologies over the needs of individual institutions. Moshtari and Safarpour (2024) argued that non-reciprocal relationships between donors and institutions are a concern. Therefore, future research should focus on how both donor interests and institutional priorities can be harmonized for more sustainable and mutually beneficial collaborations.

Third, *human resource management and talent management practices in African HEIs*: While previous studies have examined the effects of human resource management (Barkhuizen et al., 2020) and talent management practices (Abiwu & Martins, 2024; Musakuro, 2022) in universities separately, future research should investigate how the integration of these practices can drive competitive advantages for universities. Specifically, it is important to understand which human resource management practices (e.g., compensation, recognition, institutional practices) and talent management practices (e.g., talent attraction, development, and retention) are most effective in sustaining the competitive advantage of public universities. Talent management practices, in particular, appear to be a promising avenue for future research, as they have shown a positive effect on university competitive advantages (Abiwu & Martins, 2024; Musakuro, 2022). However, limited research outside South Africa has been conducted on this topic, and further studies are needed to understand the potential of these practices in other African countries.

Fourth, *decolonization of African education*: Existing studies on the decolonization of African education provide valuable insights into the mechanisms already in place (Msila, 2021; Khosi & Vráblíková, 2020; Chinyamurindi, 2023). However, there is a lack of research on how to harmonize indigenous and external knowledge systems and assess the effectiveness of existing mechanisms in African HEIs. Building on the concepts of disobedience, (dis)embodied knowledge management, and decolonization in higher

education (Mbah, 2024), future research should focus on integrating indigenous African knowledge into the broader knowledge system of African higher education. This would require a deeper understanding of the extent to which the thinking, practice, and curriculum in educational institutions are rooted in African traditions. Additionally, future research should examine how digital networking and continental centers of excellence in African universities can contribute to the discourse and practice of decolonization. Previous studies have linked digital transformation with decolonization (Msila, 2021) and explored decolonial theories and salon sessions for reflection (Khosi & Vrábílková, 2020), but little is known about how these efforts might address the broader diversity of African scholars. Fifth, *legal aspects of university-industry partnerships*: The lack of research on legal themes raises important questions for future study: How do legal issues affect university-industry partnerships as part of academic commercialization? What kind of legal frameworks are needed to address modern academic slavery in African HEIs? And, what kind of effective legislative frameworks are required to grant autonomy to African universities?

Sixth, *environmental aspects such as COVID-19 pandemic and climate-related risks*: The lack of studies on the environmental dimension leads to important research questions, particularly regarding the COVID-19 pandemic, that require future investigation. Has the COVID-19 pandemic presented both challenges and opportunities for strategy-making in African higher education? What are its practical implications for higher education managers, policymakers, and strategy practitioners in developing effective strategies? What strategic considerations are needed to reduce the digital divide among students, faculty, and staff (e.g., those without internet connectivity) to avoid similar difficulties if crises restricting physical movement occur in the future?

2.5.2 Practical implications

Based on the findings from our reviewed literature, we highlight several implications for African higher education managers, policymakers, and strategy practitioners. These implications address both the challenges and opportunities identified in the research.

Our systematic literature review indicates that while knowledge-based economic pressures, internationalization, student diversity, and leadership initiatives create opportunities for innovation and improved strategy-making in African HEIs. Therefore, managers, leaders, and strategy practitioners must address governance constraints, neoliberal policy pressures, and external interventions by adopting decolonized practices

and inclusive governance mechanisms to mitigate risks and enhance strategic effectiveness.

Moreover, the literature indicates that while diversity has both positive and negative effects at individual and organizational levels, university managers and strategy practitioners must carefully consider team composition when formulating and implementing strategies to ensure that diverse perspectives are effectively integrated, which can either enhance or hinder outcomes depending on how diversity is managed.

The findings also show that African HEIs face persistent financial constraints due to declining public funding and heavy, yet increasingly unsustainable, reliance on external donor financing. To improve the long-term financial viability of African HEIs, managers and policymakers should focus on three key findings from the literature: (a) diversification of revenue sources: This includes offering new courses, establishing international collaborations, and forming industrial partnerships to generate sustainable income streams. (b) advocating equitable funding distribution: Universities should seek potential collaborations with external partners that aim for mutual growth, as suggested. (c) curriculum innovation and cost-effective facilities: HEIs should innovate their curriculum implementation and maintain cost-effective facilities. These strategies can help ensure financial sustainability while supporting academic excellence.

Further, the findings suggest that while integrating human resource management and talent management practices can enhance performance in African HEIs, an imbalance or overreliance on one approach-particularly amid high academic staff turnover-may undermine their effectiveness. To mitigate the risks of inefficiencies or misalignment, university managers and policymakers should pay close attention to how human resource management and talent management practices are integrated. Reducing complexity in coordination and management can enhance the overall effectiveness of these practices, leading to better retention and recruitment of talent.

2.5.3 Limitations

Despite this being the first systematic literature review to provide a comprehensive understanding for African higher education managers, policy decision makers and strategy practitioners from a strategy-making perspective, we acknowledge several limitations of our review.

First, most strategy studies on African context were published in the South African. As a result, we could only find only a few strategy studies specific to African higher education in other African countries, and we have reviewed all literature up to April 2025. The geographical concentration is unsurprising, as recent literature reviews across multiple domains, including the study by Terfa et al. (2024), consistently highlight the over-representation of South Africa in strategy research on African content. South Africa's relatively well-resourced and institutionally developed higher education system, its stronger research infrastructure, and greater access to funding and international collaboration, compared to many other African countries, may contribute to the uneven distribution of research and knowledge production in Africa within global academic discourse, as noted by George et al. (2016). However, such generalization oversimplifies the continent's diversity in language, governance, history, and higher education models. Research that fails to consider the plurality and complexity of the African context reinforces reductionist narratives, as Zoogah and Nkomo (2013) also argued. Therefore, context-sensitive future research that avoids treating Africa as a monolithic entity, by considering its different socio-political, economic, and institutional conditions, thereby enriching strategy and management theory and perspectives, is highly important.

Second, as stated in our literature selection process, we included only journal articles published in English. Therefore, it is important to acknowledge that there may be other articles published in languages other than English, particularly in other African countries outside of South Africa. We also recognize that we may have missed some important findings and implications because our review was restricted to peer-reviewed articles only. Third, we focused only on African public HEIs in our review to highlight the need for studies on higher education from a strategy-making perspective. However, we acknowledge that further research into the strategy-making of private HEIs is also needed and encourage other researchers to expand our understanding of strategy-making in the higher education sector. Research on the private higher education sector is crucial, especially for gaining detailed financial insights into African private universities.

Fourth, by using the PESTLE framework for our systematic review, we may have excluded other strategic analyses beyond the PESTLE dimensions. For instance, internal strengths and weaknesses of an organization might not have been fully captured. Therefore, in line with institutional\organizational conditions, future studies should give central attention to the internal dynamics of African HEIs, such as organizational communication\discursive

practices, cultures and leadership capabilities as well as the processes or underlying micro-practices through which strategies are formulated and implemented.

Fifth, the concentration of strategy studies on higher education in a single country, South Africa, implies a theoretical limitation, which restricts a detailed contextualization of the framework. Consequently, our review is more descriptive and limited in theoretical deduction.

2.5.4 Conclusion

This study aims to conduct a review of strategy studies on modern African higher education. We provide a comprehensive view of the implications for strategy-making perspective. Using the PESTLE framework, we analyze the existing literature and identify future research directions in African higher education. The existing literature on African higher education is highly concentrated in a single country, South Africa. Most of these studies focus on the political and socio-cultural aspects of African higher education, particularly highlighting neoliberal economic policies under globalization or internationalization, governance, decolonization, diversity factors, and leadership in HEIs. Studies on the economic and technological aspects of African higher education also present a potential area for further research. There is preliminary evidence of the financial challenges facing African HEIs, as well as the potential to diversify revenue sources through offering new courses, international collaborations, and industrial partnerships. In our analysis, we identify key research directions for further study, including: (a) the evolving relationship between African higher education and the state in governance; (b) the university-industry linkage, the role of government in its effectiveness, and the viability of various academic commercialization strategies in the African context; (c) the integration of human resource management and talent management practices and their contribution to the sustainable competitive advantages of universities; and (d) investigating the effectiveness of mechanisms used to integrate indigenous African knowledge into the external knowledge system and addressing the inclusion of a more diverse group of scholars in the decolonization of African higher education.

References

- *Abiwu, L., & Martins, I. (2024). Does integrated talent management foster competitive advantage in higher education institutions?. *SA Journal of Human Resource Management*, 22, 1-13.
- *Alemu, B. S., Gameda, B. I., & Zeleke, B. (2024). The effects of internationalization of higher education on Ethiopian public universities: a critical review of literature. *Ethiopian Journal of Science and Sustainable Development*, 11(2), 38-50.
- *Alemu, S. K. (2014). An appraisal of the internationalisation of higher education in Sub-Saharan Africa. *CEPS journal*, 4(2), 71-90.
- *Ali, A. (2024). ECONOMIC CHALLENGES IN AFRICAN HIGHER EDUCATION AND INDIA'S SUPPORT. *Aweshkar Research Journal*, 31(1).
- *Asoba, S. N., & Mefi, N. P. (2022). The Strategic Prospects of Support Staff in the Transformation of an Institution of Higher Learning in the Eastern Cape Province, South Africa. In *International Conference on Multidisciplinary Research* (Vol. 2022, pp. 168-175).
- Bakoğlu, R., Öncer, A. Z., Yıldız, M. L., & Güllüoğlu, A. N. (2016). Strategy development process in higher education: The case of Marmara University. *Procedia-Social and Behavioral Sciences*, 235, 36-45.
- *Barkhuizen, N., Lesenyeho, D., & Schutte, N. (2020). Talent retention of academic staff in South African higher education institutions. *International Journal of Business and Management Studies*, 12(1), 191-207.
- *Brock-Utne, B. (2003). Formulating higher education policies in Africa: The pressure from external forces and the neoliberal agenda. *Journal of Higher Education in Africa/Revue de l'enseignement supérieur en Afrique*, 24-56.
- *Bukusi, A. D. M., Korir, A. J., & Musya, J. K. (2023). How indigenous leadership research in Africa can inspire national prosperity. *Open Journal of Social Sciences*, 11(7), 134-155.
- Burgelman, R. A., Floyd, S. W., Laamanen, T., Mantere, S., Vaara, E., & Whittington, R. (2018). Strategy processes and practices: Dialogues and intersections. *Strategic management journal*, 39(3), 531-558.
- *Chinyamurindi, W. (2023). "We need our own super heroes and their stories"—Towards decolonised teaching within the management sciences. *South African Journal of Education*, 43(3), 1-8.

- *Chipunza, C., & Matsumunyane, L. L. (2018). Motivation sources and leadership styles among middle managers at a South African university. *SA Journal of Human Resource Management, 16*(1), 1-13.
- *Cloete, N. (2014). The South African higher education system: Performance and policy. *Studies in Higher Education, 39*(8), 1355-1368.
- Cordeiro-Rodrigues, L. (2022). African higher education and decolonizing the teaching of philosophy. *Educational Philosophy and Theory, 54*(11), 1854-1867.
- Cox, G., & Trotter, H. (2017). Factors shaping lecturers' adoption of OER at three South African universities.
- *Cross, M., Mhlanga, E., & Ojo, E. (2011). Emerging concept of internationalisation in South African higher education: Conversations on local and global exposure at the University of the Witwatersrand (Wits). *Journal of studies in international education, 15*(1), 75-92.
- *Crowther, D., Strydom, A. J., & Dzansi, D. Y. (2018). Towards the sustainability of a financially constrained university's hotel school: Lessons from local and international universities' hotel schools. *Journal of Hospitality, Tourism and Leisure, 7*(4), 1-31.
- Dalirazar, S., & Sabzi, Z. (2023). Strategic analysis of barriers and solutions to development of sustainable buildings using PESTLE technique. *International Journal of Construction Management, 23*(1), 167-181.
- Dampson, D. G., & Edwards, A. K. (2019). Strategic thinking, leadership and governance for African universities: Lessons from successful universities. *Strategic Management-a Dynamic View, 7*(8), 1-19.
- *Dullaart, G., Coetsee, Y., Farmer, J. L., Feldman, J., Joorst, J., Loots, R., ... & Ntwasa, S. (2023). Challenges of Transforming Curricula: Reflections by an Interdisciplinary Community of Practice. *Transformation in Higher Education, 8*, 301.
- *Erasmus, M., Louw, H., van Rensburg, Z. J., Fourie, M., & Verhoef, A. H. (2022). The enhancement of academic integrity through a community of practice at the North-West University, South Africa.
- Farrant, J. H., & Afonso, L. M. (1997). Strategic planning in African universities: how relevant are Northern models?. *Higher Education Policy, 10*(1), 23-30.
- Farrant, J., & Fielden, J. (1996). Strategic planning in African universities. *New Papers on Higher Education, 2*.

- *Fussy, D. S. (2024). Cultivating a research culture in Tanzanian higher education. *Education Inquiry*, 1-22.
- Garnett, A., Bevan-Dye, A. L., & De Klerk, N. (2011). Deliberate strategy and the tangible link to performance: Lessons from South African higher education.
- George, G., Corbishley, C., Khayesi, J. N., Haas, M. R., & Tihanyi, L. (2016). Bringing Africa in: Promising directions for management research. *Academy of Management Journal*, 59(2), 377-393.
- Hadji, M. J., & Osunkunle, O. (2020). The South African Higher Education Strategic Planning Process: Compliance or Shaping the Future. *African Journal of Development Studies*, 10(3).
- Hart, S. L. (1992). An integrative framework for strategy-making processes. *Academy of management review*, 17(2), 327-351.
- Hassanien, M. A. (2017). Strategic planning in higher education, a need for innovative model. *Journal of Education, Society and Behavioural Science*, 23(2), 1-11.
- *Hlengwa, D. C. (2014). The Challenges of Working and Studying at a Satellite Campus of a University: A Case of the Durban University of Technology. *Mediterranean Journal of Social Sciences*, 5(27), P2.
- *Jansen van Vuuren, C. D., Visser, K., & du Plessis, M. (2022). Influential factors impacting leadership effectiveness: A case study at a public university. *Acta Commercii*, 22(1), 1-9.
- *Johnson, A. T., & Mbah, M. F. (2024). Disobedience,(dis) embodied knowledge management, and decolonization: higher education in The Gambia. *Higher Education*, 1-18.
- Johnson, G., Melin, L., & Whittington, R. (2003). Micro strategy and strategizing: towards an activity-based view. *Journal of management studies*, 40(1), 3-22.
- *Jooste, N., & Hagenmeier, C. (2022). Policy framework for the internationalisation of higher education in South Africa: A compass for comprehensive internationalisation?. *Journal of Studies in International Education*, 26(4), 415-435.
- *Jowi, J. O. (2012). African universities in the global knowledge economy: The good and ugly of internationalization. *Journal of Marketing for Higher Education*, 22(1), 153-165.
- *Jowi, J. O. (2022). Recent developments in internationalization in Africa. *Materials on African Regional and Continental Integration in Higher Education*, 265.

- Kabui, C. A., Machuki, V. N., Yabs, J. K., & Njihia, J. M. (2018). Strategic planning process and performance of accredited universities in Kenya: The moderating effect of organizational characteristics. *DBA Africa Management Review*, 8(2).
- *Kerr, A., Piraino, P., & Ranchhod, V. (2017). Estimating the size and impact of affirmative action in undergraduate admissions at the University of Cape Town. *South African Journal of Economics*, 85(4), 515-532.
- *Khosi, M., & Vráblíková, L. (2020). The Salon is now in session: a reflection on UNISA's decolonial reading. *Journal of International Women's Studies*, 21(7), 23-36.
- Makoe, M. (2022). Resilient Leadership in Time of Crisis in Distance Education Institutions in Sub-Saharan Africa. In *Handbook of Open, Distance and Digital Education* (pp. 1-15). Singapore: Springer Nature Singapore.
- *Malund, P. N., & Atwebembeire, J. (2024). Institutional planning and unintended consequences in public higher education institutions in Uganda. *International Journal of Management (IJM)*, 15(04), 102-112.
- *Matsepe, D., Cross, M., & Fenyane, S. (2020). Equity in admissions policies of undergraduate students in post democracy in selected South African universities. *International journal of Criminology and Sociology*, 9, 437-445.
- *Mgaiwa, S. J. (2021). Fostering graduate employability: Rethinking Tanzania's university practices. *Sage Open*, 11(2), 21582440211006709.
- Mirabeau, L., Maguire, S., & Hardy, C. (2017). Bridging practice and process research to study transient manifestations of strategy. *Strategic Management Journal*, 39(3), 582-605.
- *Mofolo, M. A., & Novukela, C. S. (2024). Intergrating the performance management system of a university in South Africa with its strategic plan. *SA Journal of Human Resource Management*, 22, 2404.
- *Moletsane, R. (2023). Using photovoice to enhance young women's participation in addressing gender-based violence in higher education. *Comparative Education*, 59(2), 239-258.
- *Moshtari, M., & Safarpour, A. (2024). Challenges and strategies for the internationalization of higher education in low-income East African countries. *Higher Education*, 87(1), 89-109.

- * (2021). Digitalization and decolonizing education: A qualitative study of university of south africa (unisa) leadership. *International Journal of Information and Education Technology*, 11(11), 553-560.
- *Musakuro, R. N. (2022). A framework development for talent management in the higher education sector. *SA Journal of Human Resource Management*, 20, 1671.
- *Musakuro, R. N., & De Klerk, F. (2021). Academic talent: Perceived challenges to talent management in the South African higher education sector. *SA Journal of Human Resource Management*, 19, 1394.
- *Mushemeza, E. D. (2016). Opportunities and Challenges of Academic Staff in Higher Education in Africa. *International Journal of Higher Education*, 5(3), 236-246.
- Muswaba, M. M., & Worku, Z. (2012). Strategic management of public Further Education and Training (FET) colleges in South Africa. *African Journal of Science, Technology, Innovation and Development*, 4(3), 147-170.
- *Mwanzia Mulili, B. (2014). Corporate governance in Kenya's public universities. *Journal of Applied Research in Higher Education*, 6(2), 342-357.
- *Ndlovu, W., Ngirande, H., Setati, S. T., & Zhuwao, S. (2018). Transformational leadership and employee organisational commitment in a rural-based higher education institution in South Africa. *SA Journal of Human Resource Management*, 16(1), 1-7.
- *Ngcobo, X. M., Marimuthu, F., & Stainbank, L. J. (2024). Revenue sourcing for the financial sustainability of a university of technology: an exploratory study. *Cogent Education*, 11(1), 2295173.
- Ngwana, T. F. A. (2002). Higher Education Strategic Planning in Sub-Saharan Africa. A case Study of Cameroon Education Resource Information Centre, Referencing and Resource Facility.
- *Odhiambo, G. (2014). The challenges and future of public higher education leadership in Kenya. *Journal of Higher Education Policy and Management*, 36(2), 183-195.
- *Odora, R. J. (2014). The Effectiveness of Benchmarking as a Organizational Transformation Strategy in Higher Education institutions in South Africa. *Mediterranean Journal of Social Sciences*, 5(1), 521-530.
- *Oparinde, K. M., Govender, V., & Moyo, S. (2022). Entrenching internationalisation in African higher education institutions. *Perspectives in Education*, 40(4), 104-116.

- Owolabi, S. A., & Makinde, O. G. (2012). The effects of strategic planning on corporate performance in university education: A study of Babcock University. *Arabian Journal of Business and Management Review (Kuwait Chapter)*, 2(4), 27-44.
- *Owusu, F., Kalipeni, E., Awortwi, N., & Kiiru, J. M. M. (2017). Building research capacity for African institutions: confronting the research leadership gap and lessons from African research leaders. *International Journal of Leadership in Education*, 20(2), 220-245.
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *bmj*, 372.
- Pretorius, M., & Maritz, R. (2011). Strategy making: the approach matters. *Journal of Business Strategy*, 32(4), 25-31.
- *Quarshie, A. N., Nkansah, G. B., & Oduro-Ofori, E. (2023). How far is progress? Gender dimensions of student enrollment in higher education in Ghana: The case of Kwame Nkrumah University of Science and Technology. *SAGE Open*, 13(4), 21582440231220456.
- Rossouw, J. P. (2020). Developing a Faculty Research Culture in Higher Education: A South African Perspective. *Bulgarian Comparative Education Society*.
- *Salawu, M. K., & Moloi, T. (2024). The role of university–industry partnership in innovative curriculum development: A case study of South African universities in the fourth industrial revolution. *International Journal of Education and Practice*, 12(2), 298-311.
- *Sawyer, A. (2004). Challenges facing African universities: Selected issues. *African studies review*, 1-59.
- *Setati, S. T., Zhuwao, S., Ngirande, H., & Ndlovu, W. (2019). Gender diversity, ethnic diversity and employee performance in a South African higher education institution. *SA Journal of Human Resource Management*, 17(1), 1-8.
- *Shackleton, L., Riordan, S., & Simonis, D. (2006, November). Gender and the transformation agenda in South African higher education. In *Women's studies international forum* (Vol. 29, No. 6, pp. 572-580). Pergamon.
- *Steynberg, L., Grundling, J. P., & Venter, M. (2024). Neo-Liberalism's Shadows: Modern Slavery in South African Higher Education. *Transformation in Higher Education*, 9, 405.

- *Strong, K., & Kelly, C. K. (2022). Youth leadership for development: contradictions of Africa's growing leadership pipeline. *The Journal of Modern African Studies*, 60(2), 217-238.
- *Strydom, K., & Fourie, C. J. S. (2018). The perceived influence of diversity factors on effective strategy implementation in a higher education institution. *Heliyon*, 4(4).
- *Teferra, D., & Altbachl, P. G. (2004). African higher education: Challenges for the 21st century. *Higher education*, 47, 21-50.
- Terfa Eticha, G., Brunninge, O., & Kassa Tessema, W. (2024). Strategy research in an African context: A systematic literature review. *Africa Journal of Management*, 10(3), 316-350.
- *Udeh, C. A., Daraojimba, R. E., Odulaja, B. A., Afolabi, J. O. A., Ogedengbe, D. E., & James, O. O. (2024). Youth empowerment in Africa: Lessons for US youth development programs. *World Journal of Advanced Research and Reviews*, 21(1), 1942-1958.
- Vivek, R. (2022). A Systematic Review of the Consequences of Covid-19 Pandemic and Expansion of Pestle Framework: Time to Perceive Health Environment as a Separate Dimension. *International Economic Policy*, (37), 55-76.
- *Woldegiorgis, E. T., & Chiramba, O. (2025). Access and success in higher education: fostering resilience in historically disadvantaged students in South Africa. *Journal of Applied Research in Higher Education*, 17(2), 759-771.
- *Woldegiorgis, E. T., & Doevenspeck, M. (2013). The Changing Role of Higher Education in Africa: " A Historical Reflection". *Higher Education Studies*, 3(6), 35-45.
- World Education Statistics. (2024). World education statistics 2024. UNESCO Institute for Statistics. <https://uis.unesco.org/>
- Yousef, W. (2024). The prevalence of internationalization of higher education in the Middle East and North Africa: challenges and opportunities. *Cogent Education*, 11(1), 2374688.
- Zoogah, D. B., & Nkomo, S. (2013). Management in Africa: Macro and micro perspectives. *Management Research in Africa*, 53(9).

CHAPTER 3: PARTICIPATION IN THE STRATEGY-MAKING PROCESS AT HEIS: A CASE STUDY AND ANALYSIS OF STRATEGY DISCOURSE AT AN HEI IN ETHIOPIA¹²

Abstract

The contributions of participation to the strategy-making process have been well documented. Nevertheless, there is limited research into participation, how it might be impeded or enhanced in public higher education context. Using insights from Ethiopia and through the analysis of strategy discourses produced by retrospective interview conversations with managers and employees and focus group discussion (FGD) in the university. This study investigated participation in strategy-making process with the goal of discovering the discourses that impede or enhance it. The result shows that mystification, bureaucratization, and rationalization impede participation, while operationalization, politicization, localization of routines, and identification enhance it. This study suggest that discursive practices influence the level of participation in strategy-making process in HEIs, and that strategy practitioners who plan to make strategy in HEIs should be conscious of the way strategy is communicated, including its texts and talking, to enhance participation.

Keywords: Participation; strategy-making process, strategy discourses; higher education institutions

3.1 Introduction

Participation is increasingly an important issue in higher education institutions (HEIs) (Falqueto et al., 2020). Participation is an often-used term in strategy-making to refer the inclusion of a wider group of stakeholders in the strategy-making process (Varaa et al., 2019). The need to enhance the participation of senior management, council, academic managers, administrative managers, faculty, technical and administrative employees in the strategy-making process is crucial to higher education institution to acquire and use the information or ideas scattered across an organization (Amrollahi & Ghapnchi, 2016; Hassanien, 2017).

In recent years, there have been extensive studies on strategy-making process in higher education institutions in relation to topics such as the application of strategic-planning and the need for innovative models (Jalal & Murray, 2019) and open strategy (Amrollahi &

¹ This article is published in *Perspectives: Policy and Practice in Higher Education* this is the link <https://www.tandfonline.com/doi/full/10.1080/13603108.2025.2530233>

² Authors: Zerihun Abera, Daniel Pittino, Mohammad Eslami and Yitbarek Takele

Ghapnchi, 2016). However, to the best of our knowledge, there is limited research into participation, how it might be impeded or enhanced in public higher education context. While studies on strategy-making in business organizations have been conducted (Hutter et al., 2017; Mack & Szulanski, 2017), and are reviewed in the next section, the topic of participation is a striking omission from the current studies into strategy-making in higher education.

In order to address this issue, this paper presents study which investigated participation in strategy-making process at large public university in Ethiopia, with the goal of discovering whether the discourses practiced at different university levels either impede or enhance participation in strategy-making process.

3.2 Literature review

3.2.1 Participation in strategy studies in business

In order to fully understand the contribution of participation in strategy-making process, Burgelman (1988) and Mintzberg and Waters (1985) showed that participation is an important antecedent for emergent strategy works. It was argued by Mintzberg & Waters (1985) that if strategies are to be realized, emergent strategies, driven by participation from all levels of the organization, must be integrated with deliberate strategies. This was also affirmed by Mirabeau et al. (2017) in their strategy research review to bridge practice and process. Therefore, by implication, enhancing collective participation contributes to organization to realize its strategies. However, these studies mainly considered the participation of middle-managements as strategy actors to challenge the tradition and domination of top-management.

Moreover, the contribution of participation and specific practices that impede or enhance it has been considered by Jarzabkowski (2005) in relation to micro-level strategic activities. It was discussed by Varaa et al. (2019) that if individuals' interests and contributions to strategic directions are essential, participation at the micro-level must be a central focus in strategy work. Further, this was also shown by Kaplan (2008) and Mueller et al. (2015) that individual interests and contribution to strategic directions are maintained through their participation in strategy-making process and related politics. While acknowledging the participation at the micro-level, these studies fail to extend

participation beyond managerial roles, overlooking the importance of employee participation in the strategy-making process.

3.2.2 Participation in the strategy-making of HEIs and discursive practices

Participation has many positive contributions to the strategy-making process of higher education institutions while its absence negatively affects its quality (Amrollahi & Ghapnchi, 2016). It contributes to the effectiveness of the plan (Jalal & Murray, 2019), provides valuable information (Falqueto et al., 2020), improves the plan quality and standards by providing innovative ideas (Amrollahi & Ghapnchi, 2016).

While participation in the strategy-making process is a common phenomenon across organizations, at HEIs, it is a place where strategic academic perspectives and theories are taught, and where these concepts are applied through professional and discursive practices. However, research into it regarding what impedes or enhances participation is still lacking. We have been able to identify only one study which focused on participation in strategy-making in universities (Amrollahi & Ghapnchi, 2016). This study found that only 13% of targeted stakeholders participated in the planning process. However, the study only focused on one participation platform- crowdsourcing or online and did not collect any data on other means like surveys, brainstorming sessions and/or open conversations.

Given this lack of studies, there is notable lack of research on participation in strategy-making process at higher education. Nevertheless, participation in the strategy-making process is well-documented in other contexts, particularly as far as the participation platforms, who must participate in it and the discourses used to impede or enhance it are concerned. Based on the data derived from Siemens, Hutter et al. (2017) showed that there was stable effect of participation behavior (submitting ideas, commenting, and evaluating or voting) in open strategy virtual platform across managerial positions. Mack and Szulanski (2017) also showed that there is variation in the participation of managers, employees and stakeholders in alternatives generation and idea selection in strategy workshops.

As mentioned previously, only one study to date investigated participation in the strategy-making of university, it was recommended that social networks and communication practices could potentially improve participation in strategy-making process. However, to

the best of our knowledge no such study has been carried out on the discursive practices in the strategy-making process of HEIs. In addition, none of previous studies on strategy in this setting attempted to contact all organization members, considering the texts and talking of strategy, and analyze to show whether this has implications for their participation in the strategy-making process. Nevertheless, strategy discursive practices are well-documented in other contexts, particularly as far as subjectivity and power in strategy-making work is concerned. Notably, Knights and Morgan (1991) showed the effects of corporate strategy discourses on strategic subjectivity, gaining power and legitimizing dominance. Moreover, several studies also clearly show that discursive practices are used by individual or group to shape the strategy directions, negotiate interests, maintain dominance and gain power or struggle for subjective positions (Mantere & Vaara, 2008; Jays et al., 2015; Mantere & Whittington, 2021; Splitter et al., 2023).

It is clear, then, that there is a general lack of research on participation in the strategy-making process of HEIs. Consequently, this study aims to investigate participation in the strategy-making process at a university. By conducting interview conversation with managers and employees at all levels and focus group discussion (FGD) in university, we analyzed the strategy discourses to identify its impeding or enhancing implications for participation in the strategy-making process.

3.3 Methodology

3.3.1 Research method and data sample

We were interested in analyzing the strategy discourses that either impede or enhance participation in strategy formulation, implementation and evaluation works, and for this study, we employed a critical case study design, as it offers a valuable opportunity to contextualize discourses, while providing alternative explanations and contribute to the existing body of knowledge (Yin, 2009). Addis Ababa University (AAU), in Ethiopia, was selected as our case study setting. To facilitate analyses, we define strategy as purposeful activities toward stated objectives across top, middle, and lower management levels, examining both formulation and implementation to identify key actors, their interactions, and gaps arising from conflicting interests or discourses (Mirabeau et al., 2017). In our context, the strategy process involves forming a drafting committee, preparing the strategy document, soliciting feedback, finalizing and approving the plan, communicating it, cascading responsibilities, and conducting implementation and monitoring. Following

Knights and Morgan (1991), we view discourse as ideas and practices shaping how individuals respond to phenomena, with strategy discourse reflecting intentions and actions across hierarchies, often sustaining or challenging the status quo (Mantere & Vaara, 2008). Participation, defined as stakeholder involvement in the formulation–implementation divide (Vaara et al., 2019), enhances commitment and decision quality, while secrecy and exclusion hinder effectiveness and reinforce inequality (Knights & Morgan, 1991).

AAU was established in 1950 as the University College of Addis Ababa (UCAA) and is the first and largest public university. It is fully funded by the government, with over 8,000 employees and serves 47,000 students across 70 undergraduate and 293 graduate programs. In 2020, AAU launched a ten-year strategic plan (2020-2030) with the goal of becoming a world-class academic institution and the leading research university in East Africa. The strategic plan document has acknowledged the importance of community engagement, stakeholder participation, and the effective use of the institution's existing resources to achieve these goals.

To produce the potential strategy discourses for analysis, we had retrospective interview conversations with key informants and held focus group discussions (FGDs). Participants were asked about their concept of strategy, how it was formulated, how it was communicated, its ongoing implementation, the roles of internal stakeholders, the challenges and possible solutions. The individual interviews were complemented by FGDs, where four randomly selected academic staff members had discussions on the strategy. Our goal was to identify the discourses used at different organizational levels.

These sessions were conducted in Amharic and Oromic, and all interviews, except for one, were audio-recorded with the explicit consent of the participants. Interviews duration was between 45 minutes to 2 hours, while FGDs took 90 minutes. The content was transcribed in the original languages and then translated into English by one of the coauthors, with validation by a third person fluent in Amharic, Oromic, and English to ensure accuracy and consistency.

A snowball sampling method was used to select participants, we included both managerial and non-managerial employees at different levels. The participant pool included 5 PhD holders, 8 individuals with master's degrees, and 12 with bachelor's degrees. Among them,

3 were top-managements, 5 were middle-managements, 4 were lower-managements, and 13 were academic and operational employees (see Appendix, Table 1).

3.3.2 Data analysis

Our data analysis followed a three-step qualitative approach: open coding, axial coding, and synthesizing (Gioia et al., 2013). In the first phase, we reviewed the transcribed interviews and FGDs line by line to identify first-order codes, focusing on the concepts of strategy and strategy-making process. Using NVivo 20 Pro software, we generated a codebook with 54 first-order codes, which were then reviewed and refined to 19 relevant codes (see Appendix, Table 2).

During the axial coding phase, in consulting with relevant literatures to label and examine their relationship, we identified second-order themes, mystification, bureaucratization, rationalization, operationalization, politicization, localization of routines, and identification. In the final phase, we synthesized these themes into strategy discourses with impeding or enhance implications for participation (see Appendix, Table 2).

3.4 Results

3.4.1 Discourses impeding participation

Mystifications

Strategy concept and its formulation process as the work of top-management level

Firstly, the top-management put forward what we might label ‘mystification’ in strategy-talking which limits the participation of other people in the strategy formulation process. One top-management conceptualized strategy and its formulation as (quoted in Appendix, Table 2) a ‘secretive’ by its nature and a ‘top-management document’ that is not written by all people. Similarly, another top-management stated that lower-managements cannot formulate strategy as it is a ‘top-management issue’ and they should merely focus on its implementation. Similarities emerged, when these were contrasted with the responses of middle-management and academic staff FGD offering positive answer to our question on the role of stakeholders in the process and stated strategy was developed at the top and communicated downward for implementation.

Strategy as a formally communicated plan following the organizational structure

In order to better understand the clarity of strategy formulation process, we must turn to how strategy was communicated. A department head stated strategic plans were communicated downward with high formality and ‘unclear planning formats and templates’ to operationalize but must be adhered to it. As we continued, from his phrases and commanding tone, the use of ‘x number of staff’ as a strategic goal, ... ‘my boss’ (to refer college dean) called for meetings (Appendix, Table 2), it was noted the unclarity of formats or templates, he blamed the planning officers lacked an expertise required to prepare it. In addition to this, it was also noted from the discussion that there were formal meetings at college level for strategy discussions. Similarity existed when it was compared to the responses of administrative employees suggesting the need for the fully aware of the university strategic plan contents.

In sum, based on the data from managers and FGD participants, the way strategy understood, its formulation and communications and the texts used tended to suggest it was mystified.

Bureaucratization

Alignment and enforcement of rules and regulations in resource allocation and utilization

Middle manager stated what we might label ‘bureaucratization’ how they were playing their role and exercising power in enforcing rules and regulations that impede participation in the strategy-making process. Most of the administrative directors claimed a subjective position of enforcing rules and regulations and its alignment in resource allocation and utilization to ensure accountability and efficiency. However, when contrasted with the response from junior managers and employees we see a very noticeable discrepancy. One academic employee complained about extensive bureaucracy in the finance, purchasing, and human resource management units:

The finance, human resource management, material purchasing procedures, and processes are highly bureaucratic. ... if there is commitment the bureaucracy works but ... people are chauvinists.

They attributed excessive procedures and delays to access resources and information, controlling issues and imposing power to middle-managements whom they called

chauvinists. While endorsing their subjectivity, they criticized middle-managements, as they were not committed.

In summary, despite the importance of enforcing rules and regulation, the tones used by lower-managements and employees to state procedures and delays, and power tended to suggest the strategy-making process was bureaucratized.

Rationalization

Middle-managements' intermediary roles, attempting to influence both top- and middle-managements

Further, the middle-managements were claiming their power from government funding agencies as law enforcers, using the appeal to rules and regulations as a political alternative, and employing technologies and the automation of some university's sub-system to control, what we might term 'rationalization' tend to impede participation. One middle manager suggested that 'controlling mechanism is mandatory', hence, including top-management need to follow the 'government regulations' in the process. The manager looked proud as he said that the university had been top-ranked in HEIs by its auditing and inspections performance. As we attempted to contrast with the lower-managements and employs criticisms for excessive procedures and delays, another administrative director rationalized that the 'automation' of service delivery process and avoiding non-value-adding activities and 'unnecessary checks' were being adopted and offering a 'self-checking system' and 'boosting accuracy'.

In summary, the discussions might seem the attempt to silence the open criticisms from lower-managements and academic staff by rationalizing strategy.

3.4.2 Discourses enhancing participation

Operationalization

Strategy formulation as both top-down and bottom-up approach

Both managers and employees were also asked to recall their roles during strategy formulation time, what we might term the 'operationalization' of strategy. The strategy formulation process was dialectic between top-down strategic plans and bottom-up teamwork and suggestions. While the power of top-management as strategist was

legitimized, middle and lower managements also participated in operationalizing the corporate strategic plan. One top-management stated that the strategy was formulated through committee organized at top-management by collecting all ‘necessary information’, ‘inputs or documents’ based on checklists, then at the draft stage, the strategic plan document was circulated across all organizational levels for comments. Similarly, one associated college dean discussed that the strategic plan document was finalized through inputs gathered from department heads and academic staff and, finally, communicated to all through email. There were no differences when contrasted with the FGD evidencing comments were sent to college deans for strategy inputs and enhancement. However, they felt suspicious whether their comments were used and incorporated to enhance the final document.

In sum, the discussion with both managers and employees suggesting strategy was operationalized through both top-down and bottom-up approach.

Politicization

Department heads as struggling to resist power

Department heads were asked about the challenges and solutions towards strategy implementations. An academic department connected the challenges to college deans’ exercising excessive power. This was characterized as ‘building a territorial boundary and an empire’, unwilling to listen to any person ‘criticizing’ against their power, if so he/she was labeled as a ‘fault finder’. Hence, if a person wanted to get acceptance, he/she should prefer not to challenge the ‘boss’, instead must be ‘diplomat’. However, not to endorse the middle-managements power imposition and excessive controls, the academic department head continued to professionally struggle what he labelled as ‘non-bullfighting’ to avoid the direct conflict but indirectly criticizing and resisting when the chance and time could allow.

In sum, both academic department heads and staff continued struggling the power and control from middle-managements by politicizing strategy process. In their discursive participation, they sought to address the illegitimacy of power imposed by middle-management and to build power bases at local department levels.

Localization

Department heads and academic staff localizing strategy works

As we continued our interview conversation with the ex-department heads on their suggestions toward strategic challenges, most of the department heads claimed what we might call ‘localization’ toward the solutions to strategy challenges by relegating the power of middle management to enable greater autonomy and flexibility. An academic department suggested that departments should have the power to make strategic decisions and give quick solutions, must be a resource allocation center and multidisciplinary. The tone and use of first-personal pronoun (‘I’) was suggesting the academic department head seeking to strategic subjectivity, power and related routines to be localized. These showed unanimity with academic staff responses, suggesting the need to empower departments on academic issues, access to resources and information at local level.

Identification

Academic staff struggle to construct subjective identity as strategists

Academic and administrative staff were also asked to suggest their solutions toward the existing strategic challenges that what we might label ‘identification’. One academic staff stated that ‘teachers’ were not allowed to participate in strategy formulation process despite they are responsible for producing research and teaching students, having valuable information and knowledge on industries which are important to strategy-making process. Similarly, the FGD participants suggested that ‘researchers’ could contribute to strategy meetings by providing alternatives, strategy directions and innovative ideas that could generate sustainable funds.

Administrative staff appeal to their organizational identity for strategic commitments

Further, administrative staff suggested their commitments to the strategy implementation. One administrative employee connected these commitments to her pride in the university because it was pioneering and performing in the region. Similarly, another employee also connected it with the university's success and image. When their responses were contrasted, almost all in all, unanimity emerged on the existence of incentive and salary problems. However, these seemed couldn't deter their continuity with the university and sought to contribute to its strategic achievements.

Planning officers as subjective identity that is vulnerable to powerlessness

Finally, three planning officers stated their roles were mainly distributing planning and reporting formats or templates, checking planning and implementation aligned with it, consolidating university plan and performance report. One officer blamed college deans and administrative directors rushing only to meet the reporting deadlines that were missing the proper contents and alignment. We contrasted this with the earlier department heads blaming planning officers not having the required expertise and unclarity of the formats and templates. However, we neither discover disagreements nor any suggestions to track the issues to the point. We also noted that another officer reported actively following up and providing training to work units based on their needs. In other words, they might have no power to influence middle-managements and the strategic planning contents itself. It could be noted that the implicit preference towards only mechanical strategy works suggested vulnerability and powerlessness to influence the strategic issues, decisions and holding others accountable for the failures.

In sum, in the above examples, the discourses suggested that while academic staff appealed their professional identity to act as strategists, administrative staff appealed to organizational identity to contribute to strategic achievements. In contrast, planning officers were vulnerable and powerless in exercising their strategic roles.

3.5 Discussions

The results suggest that the discursive practice has significant implications in impeding or enhancing participation in the strategy-making process of AAU. Most of the discourses used in our interview conversations show that top-managements mystify strategy concepts, its formulation and communications process, while middle-managements bureaucratize and rationalize its implementations. This supports the fact that, in a business contexts, where strategy understood as a secretive activity, led by top-management, in which others could only participate in very limited terms (Mantere & Vaara, 2008), where bureaucracy was perceived to invoke strategic change by controlling information and preoccupied with cost and efficiency (Jays et al., 2015), rationalization of power and control by modernizing the organizational structures (Mantere & Vaara, 2008). While no data on participation in strategy-making process of public HEIs, most of the time, which characterized as hierarchical, bureaucratic and professional structure, it can be assumed that mystification, bureaucratization and rationalization could impede participation in strategy.

Interestingly, when many of the participants endorsed strategy operationalization as top-down, a few numbers of participants had their view toward bottom-up. While the former had the view that strategy was formulated at the top-management and, then, communicated downward, in contrast, the latter group had a view that the process of strategy formulation was through inputs and comments collected from the bottom. In a business context, this is confirmed by (Mantere & Vaara, 2008), where strategy was characterized as a dialectic of top-down and bottom-up approaches. Even though we found no data on such a case, we noted from the above study that it was something that specific persons spoke for to promote participation, but not in reality to generalize.

On the other hand, academic department heads and staff continued struggling the power and control from middle-managements by politicizing strategy, hence, they tended to localized power and routines at department level. By this we refer Kaplan (2008) and Mueller et al. (2015) suggesting political practices in meeting interactions could be used to gain power and engage in strategic changes by framing situations. Such practices are engaged by actors to make their frames resonate and mobilize actions in their favors (Kaplan, 2008). Moreover, Splitter et al. (2023) also showed that a wider inclusion of frontline people could undermine the role of middle-managements in strategy. While such practices can be found in business contexts, uncertain environments and open strategy contexts, the contesting situations and top-management interests to change power structure may be difficult to assume in HEIs to enhance participation in strategy works.

Finally, while academic staff appealed to their professional identity to influence strategy process, on the other hand, administrative staff claimed university identity to contribute to strategic achievements. In addition, planning officers were vulnerable and powerless in exercising their strategic roles. In this regard, only Mantere and Whittington (2021) showed managers self-construction, based on their job and experiences, could be used to expand their career or professions to strategist identity. Knight and Jarzabkowski (2023) indicated that vulnerability and powerlessness has been noted in some elite strategists in how they talk about their strategy works. In our specific context, however, it is difficult to find data on how professional and organizational identities contribute to enhance employee participation in strategy-making.

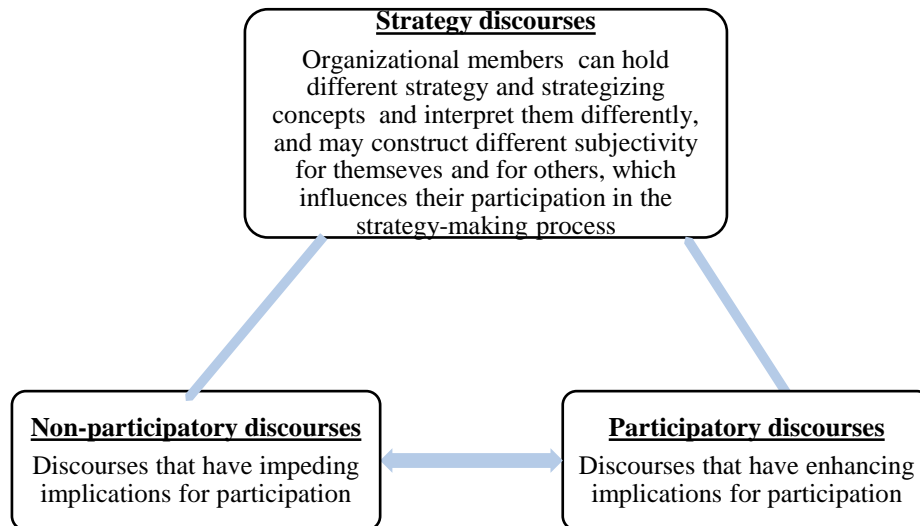


Figure 4. Strategy discourses

3.5.1 Study contributions and implications

It is worth considering how participation in strategy-making is enhanced. This study contributes to strategy in general and HEIs in particular. First, to strategy studies in a business context, by extending the concept of strategic subjectivity and power dominance from top- and middle-managements to lower-managements, highlighting the discourses engaged to contribute and gain power or resist strategy process. This has been already done by (Hutter et al., 2017) and (Mack & Szulanski, 2017) the need to enhance the participating companywide employees in strategy-making process for strategy idea generation, idea submitting and selection, commenting and evaluating or voting. However, there would be no doubt that the dynamics of discourse regarding strategic roles and power structures influence participation in the strategy-making process.

Second, it also contributes to the strategy studies in HEIs sector, by extending the constructed strategic roles of top-management and college deans to department heads and employees. This has already been indicated by Falqueto et al. (2020) who identified such a list of stakeholders where major strategy formulation roles were attributed to top-management in influencing the process. In addition, Hassanien (2017) also recommended the need for active engagement of people at college level to improve strategic planning process. However, to the best of our knowledge, no such roles are attributed to lower-managements and both academic and administrative employees. It would no doubt have to

be evidenced to exclude them, nevertheless, enhancing their participation could help in providing valuable information and knowledge for strategy formulation.

This study also has a significant implication for HEIs strategy practitioners; engaging academic practitioners in discovering how strategy was formulated and communicated within professional environments. The only investigation, Amrollahi & Ghapnchi (2016) found a low participation rate (13% of expected) in the strategy formulation of university. Their conclusion shows that strategic communication among academic groups seemed to be important to enhance their participation. Therefore, strategy practitioners who plan to make strategy should consider how strategies are communicated, including the use of texts and talking that have implications for participation, to encourage those that enhance it while relegating those that impede it.

3.5.2 Limitations and future research

One limitation of this study arises from the scope as only a single case strategy discourses were analyzed. Nevertheless, it is the first to attempt such analysis in HEIs and might encourage future researchers to analyze strategy-making discourses in other HEIs or regions by taking multiple cases (e.g. academic commercialization strategies). Another potential limitation of this study is that it was based on retrospective interview data which might have suffered from memory bias or selective recall that led to inaccurate information. Future research could thus examine the discursive practices and its implications for participation in strategy-making process by using a real-time data collection method such as diaries and observations to validate the accuracy of this study result. Future research could also examine how the struggle for power and the discourses changes over time influence participation in strategy-making by using longitudinal interviews to comprehend the result of this study across similar contexts. Finally, future research could delve into depth by investigating how employees discursively construct their professional identities and how this impacts their participation in the strategy-making process. The findings underscore the importance of actively engaging academic practitioners in strategy-making to support more informed and effective institutional decision-making. Future research could examine how faculty engagement with industry affects the level of their participation in strategic processes.

3.6 Conclusion

This study examined to investigate whether participation is impeded or enhanced in the strategy-making process HEIs. Our interview conversations analyzed here clearly show that participation is influenced by strategy discourses, leading to a discursive practice where mystification, bureaucratization, and rationalization impeded and, in contrast, operationalization, politicization, localization, and identification enhanced participation in strategy-making process. This study also highlights how these discourses are (re)produced and mobilized by both managers and employees to maintain power and subjective positions, influencing strategic changes.

Overall, this study provides new insights into participation and discursive practices in the strategy-making process within HEIs in developing nations. It highlights the importance of participation and the critical role of discourse in strategy-making to addressing challenges like resource constraints, governance structures, and fostering strategic change.

References

- Amrollahi, A., & Ghapnchi, A. H. (2016, January). Open strategic planning in universities: A case study. In *2016 49th Hawaii International Conference on System Sciences (HICSS)* (pp. 386-395). IEEE.
- Burgelman, R. A. (1988). Strategy making as a social learning process: The case of internal corporate venture. *Interfaces*, *18*(3), 74-85.
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational research methods*, *16*(1), 15-31.
- Hassanien, M. A. (2017). Strategic planning in higher education, a need for innovative model. *Journal of Education, Society and Behavioural Science*, *23*(2), 1-11.
- Hutter, K., Nketia, B. A., & Füller, J. (2017). Falling short with participation—different effects of ideation, commenting, and evaluating behavior on open strategizing. *Long Range Planning*, *50*(3), 355-370.
- Jalal, A., & Murray, A. (2019). Strategic planning for higher education: A novel model for a strategic planning process for higher education. *Journal of Higher Education Service Science and Management (JoHESSM)*, *2*(2).
- Jarzabkowski, P. (2005). Strategy as practice: An activity based approach. *Strategy as Practice*, 1-216.
- Jaynes, S. (2015). Making strategic change: a critical discourse analysis. *Journal of Organizational Change Management*, *28*(1), 97-116.
- Kaplan, S. (2008). Framing contests: Strategy making under uncertainty. *Organization science*, *19*(5), 729-752.
- Knight, E., & Jarzabkowski, P. (2023). Presenting as a chief strategy officer: A discourse-analytical study of elite subjectivities and vulnerabilities. *Human relations*, *76*(9), 1414-1440.
- Knights, D., & Morgan, G. (1991). Corporate strategy, organizations, and subjectivity: A critique. *Organization studies*, *12*(2), 251-273.
- Vaara, E., Rantakari, A., & Holstein, J. (2019). *Participation research and open strategy*. Cambridge University Press.
- Mack, D. Z., & Szulanski, G. (2017). Opening up: How centralization affects participation and inclusion in strategy making. *Long range planning*, *50*(3), 385-396.

- Mantere, S., & Vaara, E. (2008). On the problem of participation in strategy: A critical discursive perspective. *Organization science*, *19*(2), 341-358.
- Mantere, S., & Whittington, R. (2021). Becoming a strategist: The roles of strategy discourse and ontological security in managerial identity work. *Strategic Organization*, *19*(4), 553-578.
- Mintzberg, H., & Waters, J. A. (1985). Of strategies, deliberate and emergent. *Strategic management journal*, *6*(3), 257-272.
- Mirabeau, L., Maguire, S., & Hardy, C. (2017). Bridging practice and process research to study transient manifestations of strategy. *Strategic Management Journal*, *39*(3), 582-605.
- Mueller, F., Whittle, A., Gilchrist, A., & Lenney, P. (2013). Politics and strategy practice: An ethnomethodologically-informed discourse analysis perspective. *Business History*, *55*(7), 1168-1199.
- Splitter, V., Jarzabkowski, P., & Seidl, D. (2023). Middle managers' struggle over their subject position in Open Strategy processes. *Journal of management studies*, *60*(7), 1884-1923.
- Yin, R. K. (2009). *Case study research: Design and methods* (Vol. 5). sage.

CHAPTER 4: STRATEGY-MAKING IN HIGHER EDUCATION INSTITUTIONS: FACULTY MEMBERS' ACADEMIC ENGAGEMENT WITH INDUSTRY AND STRATEGY PARTICIPATION¹²

Abstract

Most existing studies on academic engagement with industry and strategy-making in higher education institutions (HEIs) have been conducted separately, lacking a holistic view. Studies now recognize that academic engagement with industry positively contributes to the strategy-making process. There are only limited studies showing how faculty members' academic engagement with industry affects the level of their participation in the university strategy-making process. Hence, through a cross-sectional survey questionnaire administered to 146 faculty members, this study aims to explore the effect of a faculty member's intensity of academic engagement with industry on their level of strategy participation at a large public university. It also examines the factors that motivate academic engagement with industry and influence the relationship between academic engagement and strategy participation. Using Partial Least Squares Structural Equation Modeling (PLS-SEM), we find that the faculty member's intensive academic engagement with industry positively affects their level of strategy participation. Further, our findings reveal that motivation to engage in industry learning significantly affects academic engagement with industry. This study suggests that university leaders, managers, and policymakers should recognize the impact of academic engagement on strategy-making and encourage such engagement to promote inclusive and informed governance.

Keywords: Strategic decision-making in higher education, faculty strategy participation, university-industry linkage, academic engagement, industry-based professional learning

4.1 Introduction

Higher education institutions (HEIs) are experiencing a transformative shift due to government policy toward a knowledge-based economy and society, as well as academic globalization and commercialization (Gonzales and Núñez, 2021; Risi et al., 2023). Academic engagement with industry plays a key role in responding to challenges and leveraging opportunities (Zreen et al., 2024).

HEIs are facing challenges in producing a knowledge-based society, training highly skilled manpower for the economy, and transferring technologies to industries (D'Este & Perkmann, 2011; Perkmann et al., 2021). At the same time, state funding for higher education has been shrinking (Ankrah & Omar, 2015; Orazbayeva et al., 2020). However, these challenges also provide opportunities for practical-oriented education, innovative

¹ This article is published in *Cogent Education* link
<https://doi.org/10.1080/2331186X.2025.2588541>

² Authors: Zerihun Abera, Daniel Pittino, Yitbarek Takele and Mohammad Eslami

research, internationalization, and academic commercialization (D'Este & Perkmann, 2011; Mascarenhas et al., 2024; Dias & Selan, 2023). These developments highlight the strategic role of academic engagement with industry.

Academic engagement with industry refers to faculty collaboration with industry through activities such as employee training, consultancy, contract and joint research, participation in conferences, and development of physical facilities such as laboratories and science parks (Hughes et al., 2016; D'Este & Patel, 2007; Reymert & Thune, 2023). Academic engagement with industry can generate valuable knowledge and skills for higher education institutions (HEIs), offering practical experiences that inform policy and strategy decision-making. In public universities in particular, such engagement equips faculty members with insights that enhance their contributions to effective strategy-making (Mindruta, 2013; Zreen et al., 2024). These contributions support greater faculty involvements in university strategy-making, help generate ideas and priorities (Scandura & Iammarino, 2022; Thompson, 2017), and broaden the understanding of strategic goals (Ssebuwufu et al., 2012). As a result, strategy-making is deemed effective when faculty members actively participate in the process, including both its formulation and implementation.

In recent years, building on this context and the importance of academic engagement, researchers have been prompted to explore academic engagement with industry. Consequently, there have been extensive studies focusing on topics such as academic engagement modes and university-industry interactions (Perkmann et al., 2021; Greven et al., 2020; D'Este et al., 2019; Azagra-Caro et al., 2017), its determinants (Scandura & Iammarino, 2022), what motivates it (Mascarenhas et al., 2024; Zhao et al., 2020), and its complementarity with other academic works (Reymert & Thune, 2023).

Moreover, studies on faculty members' participation in the strategy-making process has also been documented (Al-Omari & Salameh, 2009; Thompson, 2017). These studies have shown that effective strategy-making in HEIs requires the active participation of faculty members (Al-Omari & Salameh, 2009; Falqueto et al., 2020; Thompson, 2017). However, their exclusion matters for both strategy formulation and implementation (Welsh et al., 2005). Limited strategy participation may threaten the success and sustainability of the developed strategy, as not only do ideas and initiatives remain uncaptured, but there is also a loss of enthusiasm and interest in the process (Liew, 2012; Thompson, 2017), which leads to implementation resistance.

Despite these advances, a key gap remains in connecting faculty members' academic engagement with industry and their strategy participation. Most existing studies focus on either academic engagement with industry or strategy participation and fail to provide a holistic view of both (Scandura & Iammarino, 2022), as well as their implications for policy and strategy decisionmaking (Thompson, 2017). For instance, there has been considerable scholarship on the impact of academic engagement on society, education, and the economy (Perkmann et al., 2013, 2021); however, the connection between academic engagement with industry and its contribution to strategy-making remains underexplored. Thus, there is a need for future inquiries into the origins of academic engagement with industry and strategic ideas in a non-traditional context of developing countries and institutionally fragile, where university-industry frameworks are still in developing stages (Sassi & Mshenga, 2025). Therefore, this study is the first to respond to such calls by exploring the dynamics between academic engagement with industry and the university strategy-making.

While research has explored academic engagement with industry and strategy participation separately, little is known about how one affects the other. This study addresses that gap by examining how faculty academic engagement with industry influences their strategy participation in HEIs, by taking a large public university, with the goal of discovering the factors motivating faculty members to engage with industry. The present study uses a conceptual framework integrating the resource-based view (RBV) and institutional theory to investigate the relationship between academic engagement with industry and strategy participation. The study's unique dual approach considers both the internal human resources i.e., knowledge, skills, expertise, and initiatives generated by intensive academic engagement with industry vital to strategy-making and the organizational factors influencing intensive academic engagement and its impact on strategy participation. The study contributes both theoretically and practically by informing how academic engagement with industry shapes institutional strategy-making. Practically, this study informs university managers, policymakers, and strategy practitioners about academic engagement with industry and its potential impact on strategy participation.

4.2 Literature Review

4.2.1 Resource-Based View (RBV)

Organizational strategy-making depends critically on internal resources, particularly people and their knowledge, as well as external institutional challenges and opportunities (Zreen et al., 2024). The Resource-Based View (RBV) theory suggests that the strategic success of an organization is determined by its internal resources, including its people's valuable knowledge and skills (Barney, 1991; Teece et al., 1997). Accordingly, organizational strategic success is closely linked to the effective utilization of its internal resources; its people's knowledge and skills and their strategic initiatives (Hitt et al., 2007). On this, in applying RBV in the context of university, Philbin (2012) showed that internal resources such as academic and research team expertise (scientific experience and information) and skills are related to university-industry collaboration strategic success. Similarly, in the most recent study (Kumar et al., 2025), it is noteworthy that both university and industry rely heavily on their internal knowledge.

4.2.2 Institutional Theory

Institutional theory suggests that organization, its social expectations and activities are embedded in an institutional environment (Meyer & Rowan, 1977). Particularly, it emphasizes that coordination and control of activity dimension is the critical success of formal organization in the modern world. Therefore, organizational strategy is not and cannot be removed from its institutional context. For instance, Raynard et al. (2015) argued that if an organization fails to design appropriate strategies to respond to its social expectations (i.e regulations run by government agency) it would threaten its survival over the long term. Further, Gonzales and Núñez (2021) analyzed institutional theory in blending with neo-liberal economic line of thinking for HEIs context. Their finding indicates that when governments are no longer considering higher education as public goods, college and university managers need to develop resources in any way. This implies that university managers must strategically prioritize academic commercialization to ensure institutional sustainability. However, according to Risi et al. (2023) this does not nullify the relationship between organization strategy practice and economic system. Thus, strategy-making in HEIs is embedded in an institutional environment, particularly, government economic policies are the most important one.

4.2.3 Empirical review

Existing studies have provided various intriguing insights into academic engagement with industry (D'Este & Perkmann, 2011; Mindruta, 2013; Hughes et al., 2016; Ankrah & Omar, 2015; Reymert & Thune, 2023). For instance, Perkmann et al. (2021) analyzed the links between academic engagement, research, commercialization, and society. Their findings show that these relationships are socially conditioned and suggest that holistic studies should emphasize both organizational and individual factors across different national contexts.

Prior studies have also shown that academic engagement with industry is influenced by country-specific contexts and institutional policies. In Europe, academics are primarily motivated by social and educational factors, with commercial motivations being less significant (Orazbayeva et al., 2020). For instance, in Germany, access to funding does not impact scientists' preparedness for data sharing (Goel & Goktepe-Hulten, 2018). In the UK, research-oriented universities are more effective in industry collaborations (Bertoletti & Johnes, 2021), while in Spain and Portugal, access to funding and commercialization drive academic engagement in joint and contract research (Mascarenhas et al., 2024). Mascarenhas et al. (2024) highlight that funding influences engagement in Spain and Portugal. However, it remains unclear how this affects faculty members' participation in university strategic planning — a gap this study addresses. In North America, academic scientists in the USA follow a publication-driven model in their industry engagements (Bikard et al., 2019; Perkmann et al., 2021), while Canada requires more policy and funding diversification to improve industry-academia links (Dollinger et al., 2018), controlling rights and income sharing are important (Halilem et al., 2017).

In Latin America, academic engagement is shaped by top-down or supply-push policies, though these are often insufficient for fostering knowledge-based economies (Confraria & Vargas, 2019). In Brazil, faculty member's perceived intellectual and commercial benefits drive their engagements (Garcia et al., 2019), while Mexico faces challenges due to negative organizational factors (Puerta-Sierra & Jasso, 2020). Asia presents a mixed scenario: China's government-backed policies promote industry-academia integration, but concerns about academic independence remain (Zhuang & Kimura, 2025; Borah et al., 2021). Japan and South Korea struggle with underdeveloped engagement despite high research capacity (Liew et al., 2012; Zhuang & Kimura, 2025), while Singapore boasts a

well-developed ecosystem with clear intellectual property policies (Al-Tabbaa & Ankrah, 2016). In the Middle East and Africa, Israel leads with strong entrepreneurial culture and independent technology transfer offices (Dollinger et al., 2018), while African nations like South Africa have strong industry-academic ties, other nations like Nigeria, Kenya, Zimbabwe, Ghana, Morocco, Ethiopia, and Benin are still developing such frameworks (Sihlobo & Mbatha, 2023; Sassi & Mshenga, 2025).

Overall, while many studies underscore the significance of context, such as the influence of institutional structures in Europe, commercialization drivers in Southern Europe, and policy-driven models in Asia and Latin America, few of these studies investigate how engagement translates into strategic influence within HEIs.

4.2.4 Synthesis and Research Gap

While Resource-Based View (RBV) theorists suggest internal human resources as the most valuable asset for effective strategy-making, institutional theorists emphasize its practicing alignment to government economic policy priorities and industry demands. Hence, the present research aims to examine the relationship between academic engagement with industry and strategy participation with the goal of discovering the factors motivating faculty members to engage with industry.

4.2.5 Conceptual Framework and Hypotheses Building

Faculty Member's Academic Engagement with Industry and Strategy Participation

Studies have indicated the intensity and depth of faculty members' academic engagements with industry demonstrate relevant knowledge and information. Further, it can also generate strategic ideas for university (D'Este & Patel, 2007). In this regard, we have also been able to identify only one study which shows the connection of academic engagement with industry to organizational strategic planning (D'Este & Perkmann, 2011). This study reveals a positive relationship between contract research and corporate strategic planning. However, it focused on only one academic engagement mode and did not collect data on other modes of academic engagement, nor did it discover the specific factors that motivate engagement or influence the relationship between academic engagement with industry and strategy participation at individual level.

In addition, Al-Omari and Salameh (2009) found that a ‘depth of implementation’, referring to the extent to which faculty members were integrated into the overall fabric of the institution to support the plan, appeared to affect the effectiveness of university strategy implementation. In addition, Falqueto et al. (2020) also noticed that, when it was compared with technical and administrative managers, among internal stakeholders, the most important ones were faculty members in influencing university strategy-making process. Moreover, Thompson (2017) also confirmed that there is a significant correlation between strategy participation and its meaningfulness to implement.

As mentioned previously, only one study to date has shown a positive correlation between academic industry engagement and strategy (D’Este & Perkmann, 2011). Therefore, by considering this prior finding, there might be a positive relationship between academic engagement with industry and strategy participation.

We propose the following hypothesis:

Hypothesis 1: The intensity of individual faculty member’s academic engagement with industry positively and significantly affects their level of strategy participation.

Factors Affecting Academic Engagement with Industry

Academic engagement is shaped by a combination of individual-level and organizational-level factors that influence faculty behavior and institutional dynamics (D’Este & Perkmann, 2011). Drawing from the Resource-Based View, individual faculty learning and resource access are internal capabilities that drive engagement. Institutional theory informs how culture and leadership structures either affect or shape strategy participation.

Individual factors: several individual factors motivating academic engagement with industry have been proposed. For example, studies clearly show that faculty member’s intention to access in-kind resources (D’Este & Perkmann, 2011; Mascarenhas et al., 2024) and, typically, study and laboratory equipment (Dias & Selan, 2023), greatly influence their intensity of academic engagement with industry. While some authors showed motivation to access in-kind-resources drive an intensive of academic engagement with industry (Ding & Choi, 2011), in contrast, others found the negative impact of access to in-kind-resources on contract research and consulting (D’Este & Perkmann, 2011; Mascarenhas et al., 2024).

Industry learning opportunities such as receiving feedback from industry, participating in networks, gaining awareness of industry challenges, and understanding the applicability of the research could also motivate academic engagement (Mascarenhas et al., 2024). For example, the desire to build network ties with entrepreneurial scientists increases the likelihood of faculty member's involvement in entrepreneurial activities (Ding & Choi, 2011). In joint research, contract research and consulting activities, motivation to industry learning opportunities has a positive impact on academic engagement with industry (D'Este & Perkmann, 2011). Therefore, it is likely that an individual faculty member's motivation for industry learning might increase their intensity of academic engagement with industry.

We hypothesize as follows:

Hypothesis 2a: The motivation of individual faculty member's access in-kind resources positively and significantly affects the intensity of academic engagement with industry.

Hypothesis 2b: The motivations of individual faculty member's industry learning positively and significantly affect their intensity of academic engagement with industry in Ethiopian context.

Organizational factors: Perceived organizational cultures or orientations and leadership approaches play a significant role in influencing academic engagement with industry and participation in strategy-making at university. More specifically, a university's entrepreneurial or commercial, social innovation and traditional academic value orientations significantly influence academic engagement with industry (Perkmann et al., 2021; Johnson et al., 2017; Zhao et al., 2020). For example, university entrepreneurial orientation fosters faculty members' commercial activities (e.g. patenting, licensing, contract research, spin-off creation) hence the university strategy would be ultimately implemented (Menter, 2024). It was also confirmed (Thompson, 2017) that there is a significant correlation between faculty member's perception of collective responsibility toward commercial activities and effective strategy implementation. In addition, research has also identified that universities are perceived as central actors within the social innovation process (knowledge creating and dissemination) through knowledge brokerage, material resources, and symbolic legitimacy (Falqueto et al., 2020; Menter, 2024).

Further, studies have found that traditional scientific values (teaching and research) are not at odds with university interactions or modes of knowledge and technology transfer (e.g. academic/ industrial consulting, collaboration with industry personnel, joint publications with industry scientists) and commercial engagements (Menter, 2024; Boardman & Ponomariov, 2009). For instance, research-intensive universities are more likely to have faculty members engaging in science parks and facilitating industry collaborations (Unlu et al., 2023), universities having strong collaboration with industry personnel and scientists positively influence their strategy creation and strategic values (Allison, 2019; Panda, 2022). Therefore, there is a possibility that the university's organizational culture or orientation might influence faculty member's intensity of academic engagement with industry and their level of strategy participation.

We hypothesize as follows:

Hypothesis 3a: A high perception of individual faculty member's university organizational culture positively and significantly affects their intensity of academic engagement with industry Ethiopian context.

Hypothesis 3b: A high perception of individual faculty member's university organizational culture positively and significantly affects their level of strategy participation Ethiopian context.

Hypothesis 3c: A high perception of individual faculty member's university organizational culture positively and significantly moderates the relationship between their intensity of academic engagement with industry and the level of strategy participation Ethiopian context.

Hypothesis 3d: A high perception of individual faculty member's university organizational culture positively and significantly moderates the relationship between their industry learning motivations and intensity of academic engagement with industry Ethiopian context.

A growing recognition of the importance of a participatory leadership approach is also thought to play a significant role in influencing faculty members' active involvement in both academic engagement and the strategy-making process. For instance, effective leadership has been shown to positively influence faculty member's academic engagement with industry (Hayward, 2008). While studies have found that effective leadership is key in promoting university-industry linkages (Ssebuwufu et al., 2012), other studies have

shown that ineffective leadership leads to limited academic engagement with industry (Gemeda et al., 2023). Moreover, a study also found that an effective leadership style significantly influences employee participation in strategic plan implementation (Omuse et al., 2018). Therefore, it does seem plausible that participatory leadership might also influence both the intensity of academic engagement and the level of strategy participation.

We hypothesize as follows:

Hypothesis 4a: A high perception of individual faculty member's university organizational participatory leadership has a positive and significant effect on their intensity of academic engagement with industry Ethiopian context.

Hypothesis 4b: A high perception of individual faculty member's university organizational participatory leadership has a positive and significant effect on their level of strategy participation Ethiopian context.

Hypothesis 4c: A high perception of individual faculty member's organizational participatory leadership positively and significantly moderates the relationship between their intensity of academic engagement with industry and the level of strategy participation Ethiopian context.

Hypothesis 4d: A high perception of individual faculty member's organizational participatory leadership positively and significantly moderates the relationship between their industry learning motivations and intensity of academic engagement with industry Ethiopian context.

4.2.6 Conceptual Model

Based on the hypotheses provided, here, we grouped the variables as individual-level (independent variables), organizational-level (independent and moderating variables), academic engagement with industry (independent or mediator variable) and university strategy participation (dependent or outcome variable), as follows, Table 7.

Table 7. Variable Grouping

Individual-Level Variables	Organizational-Level Variables	Mediator Variable	Outcome
	Perceived university organizational cultures Perceived university participatory leadership		
Motivation for industry learning		Academic engagement with industry	University strategy participation
Motivation for access to in-kind resources			

Based on the review of the related literature and the research hypotheses derived, we have also developed the following conceptual model, presented in Figure 5.

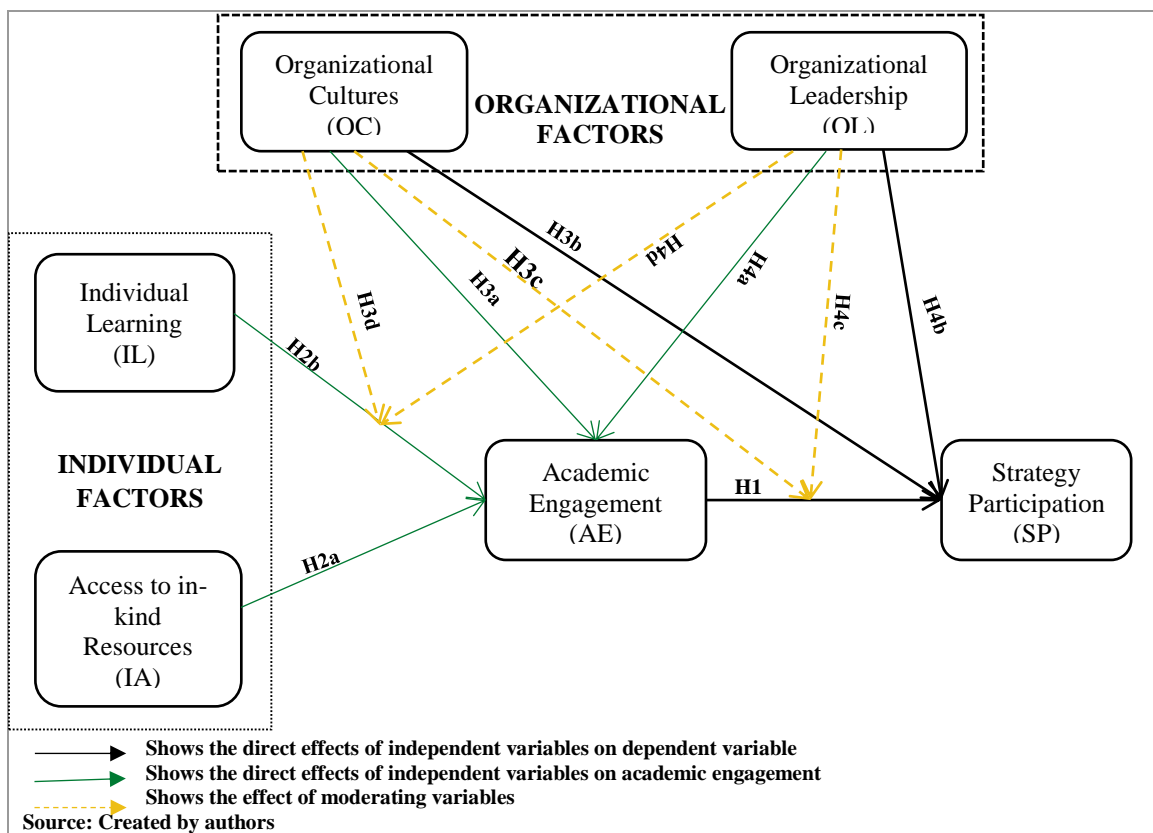


Figure 5. Conceptual research model

4.3 Methodology

4.3.1 Sample and Sample Selection

We were interested in exploring the relationship between the intensity of faculty member’s academic engagement with industry and the level of their participation in strategy-making, a questionnaire was administered to 150 university professors at Addis Ababa University (AAU) in Ethiopia. The selection of AAU as a single case study is strategically and analytically important. As Ethiopia's oldest, flagship, and most research-intensive

university, AAU is not merely one institution among many; it is the archetype of the entire Ethiopian public higher education system. Its institutional DNA is replicated across the country: a significant majority of university leaders are its graduates, curricular models and pedagogical approaches are pioneered within its colleges, and its administrative and governance structures have historically served as the blueprint for first-generation universities before they gained autonomy. Therefore, studying AAU provides unparalleled analytical generalizability. It offers a concentrated lens through which to examine the institutional logics, policies, and challenges, such as bureaucratic formalization and nascent industry linkages, that are endemic to the entire sector.

The 150 faculty participants were drawn from 10 departments across the colleges of business, engineering, and natural sciences at AAU, ensuring representation from applied and theoretical disciplines. This survey aimed to gather data on university-industry interactions, which represent the third mission of university strategic activities alongside teaching and research (Reymert & Thune, 2023; D'Este & Patel, 2007).

The sample for the study was selected based on the following criteria: (a) respondents were active, full-time faculty members of the university, (b) they were actively engaged in their university roles, and (c) they had at least five years of academic experience at the university. The convenience sampling technique was employed to identify the sample respondents. The questionnaire was developed using Google Forms and disseminated via email, personal contact networks, and institutional email channels. Given the time constraints of university professors, an internet-based survey was preferred over traditional paper-based questionnaires as it allowed respondents to participate conveniently and quickly (De Leeuw, 2018). The data collection period ran from July 2024 to December 2024.

The study received ethical clearance from the Post Graduate Programs of Addis Ababa University. In advance, we also obtained an assistance letter for the targeted departments across the colleges. Informed consent was also obtained from all participants prior to data collection. Participation was voluntary, and respondents were assured of the confidentiality and anonymity of their responses.

4.3.2 Convenience Sampling

Although convenience sampling was used, we conducted bootstrapping resamples during the analysis to enhance the reliability and generalizability of the results. Our convenience sampling may introduce a selection bias; the issues of participant inclusion or exclusion (Baker et al., 2013), which is problematic in the reliability and generalizability of the findings. However, employing convenience sampling is not always problematic (Winton & Sabol, 2022). Accordingly, the sample must meet two criterion; first, inclusion or exclusion of sample is uncorrelated with the variables of the study and, second, inclusion or exclusion can be accounted for with adjustments to the data either before or after collection (Sarstedt et al., 2017). Further, the issues of convenience sampling bias can be addressed by resampling the data sets and testing it for its reliability and generalizability by using statistical techniques such as bootstrapping (Hair et al., 2019; Winton & Sabol, 2022).

4.3.3 Data Analysis

The constructs of the study were measured using a 5-point Likert scale, adapted from previous literature (Table 8). We also conducted a pilot test with faculty members prior to distributing the full questionnaire. This pilot testing allowed us to refine the structure and clarity of the survey instrument. The pilot involved 30 faculty members from the target population who met the same sampling criteria as the main study. Participants were asked to complete the questionnaire and provide feedback on the clarity of the instructions, the relevance and comprehensibility of the items, and the overall layout. The questionnaires were then refined based on this feedback. For example, ambiguous terms were clarified, and the layout was adjusted for easier navigation. Preliminary analysis of the pilot test data was conducted to check for internal consistency reliability. Cronbach's alpha scores for all constructs in the pilot test were above the threshold of 0.7, providing initial evidence of reliability. This process provided valuable insights and helped confirm the validity and reliability of the study instrument before its full administration.

Table 8. Variables and Scales

Construct/items	Scale items	Theoretical foundation
Academic engagement with Industry (AE)	5-point Likert scale ranging from 1 (0 times) to 5 very high intensity (12 and more times)	Adapted from D'Este, & Patel (2007)
ae1	Academic intensity of engagement in training for company employees	
ae2	Academic intensity of engagement in meetings and conferences	
ae3	Academic intensity of engagement in consultancy and contract research	
ae4	Academic intensity of engagement in joint research	
ae5	Academic intensity of engagement in creation of physical facilities (incubation, laboratory, science park)	Adapted from D'este & Perkmann (2011) and Mascarenhas et al. (2024)
Access to in-kind Resources (AI)	5-point Likert scale ranging from 1 (Not motivated at all) to 5 (Very motivated)	
ia1	My access to research expertise	
ia2	Access to equipment	
Individual Learning (IL)	5-point Likert scale ranging from 1 (Not motivated at all) to 5 (Very motivated)	
il1	My information on industry problems	Extracted from Menter (2024) and Greven et al. (2020)
il2	Feedback from industry	
il3	My information on industry research	
il4	My application of research	
il5	Being part of a network	
Organizational cultures (OC)	5-point Likert scale ranging from 1 (Very low) to 5 (Very high)	Extracted from Menter (2024) and Greven et al. (2020)
oc1	We value traditional academic activities (teaching, research) of the university	
oc2	We believe in social innovativeness (knowledge creations, its disseminations) of the university	
oc3	We value entrepreneurial orientations (patenting, licensing, contract research, spin-off creation) of the university	Adapted from Al-Omari & Salameh (2009) and Thompson (2017)
Organizational leadership approach (OL)	5-point Likert scale ranging from 1 (Very low) to 5 (Very high)	
ol1	Department head/dean use participatory approach	
ol2	Leaders support academic freedom/autonomous decisions	
ol3	Leader's support of teamwork/collective responsibilities	
Strategy Participation (SP)	5-point Likert scale ranging from 1 (Never) to 5 (Very frequently)	
p1	I participated in defining strategic goals of the department	
p2	I participated in formulating measurements of outcomes	
p3	I am familiarity with the strategic plan of the department	
p4	I participated in institutional planning exercise	
p5	I refer to the strategic plan to evaluate the distribution of resource	
p6	I participate in the evaluation and offer advice on institutional strategy	

Out of 200 emailed questionnaires, we obtained 146 valid responses, yielding a 73% response rate, which were good when using internet-based survey (De Leeuw, 2018). For data analysis, the Statistical Package for the Social Sciences (SPSS) version 28 was employed. In the later analysis we used Partial Least Squares Structural Equation Modeling (PLS-SEM). According to Hair et al. (2019), unlike traditional covariance-based SEM (CB-SEM) which requires larger sample size, PLS-SEM is suited to small sample size. Statistical techniques such as bootstrapping, commonly used in PLS-SEM, are employed

to overcome the problem of reliability and generalizability of the findings even with small sample size when testing hypothesis and moderator effects. Hence, we conducted 5,000 bootstrapping resamples during PLS-SEM analysis to enhance the reliability of coefficient estimates. This highlights the suitability of employing PLS-SEM in our study, exploring the relationship between academic engagement with industry and strategy participation with the goal of discovering the factors motivating faculty members to engage with industry.

First, this study uses two well-established scales: academic engagement with industry and participation in strategy making. While benefiting from using PLS-SEM, the rationale is twofold; first, previous studies support the validity and reliability of each scale (D'Este, & Patel, 2007; D'este & Perkmann, 2011; Mascarenhas et al., 2024; Al-Omari & Salameh, 2009; Thompson, 2017). Second, previous research also established a significant relationship between the two constructs (D'Este & Patel, 2007; D'Este & Perkmann, 2011). Although we acknowledge the potential for reciprocal effects, prior studies suggest a stronger causal direction from academic engagement with industry to strategy participation (D'Este & Patel, 2007). However, we cannot fully rule out endogeneity.

In addition, this study aimed to maximize the explained variance of the endogenous variables, i.e the power of predicting the outcomes of the model, not testing how the model fits to overall data. As this study employed, unlike CB-SEM, PLS-SEM does not rely on model fit indices such as CFI or TLI. However, SRMR is sometimes reported to assess approximate model fit (Hair et al., 2019).

Following Hair et al. (2019), the analysis was conducted in three stages: first, assessing preliminary considerations; second, evaluating the measurement model; and third, assessing the structural model using suggested thumb rules for the evaluation.

The Common Method Bias was assessed by running the total variance explained (see also Table 9), which showed that the unrotated factor resulted in 75.896% of the total variance. The first item accounted for 21.365% of the total variance, indicating that common method bias was not an issue, as the value did not exceed 50% (Hair et al., 2014). Because this study employed SmartPLS, a marker variable was not included. Instead, we opted to use the Full Collinearity Test (Variance Inflation Factor [VIF] method), which is widely accepted in PLS-SEM studies for detecting common method bias. The test results for all constructs ranged between 1.083 and 1.385. According to Kock (2015), full collinearity

VIFs below 3.3 indicate that common method bias is unlikely to be a concern in PLS-SEM models.

Table 9. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.128	21.365	21.365	5.128	21.365	21.365
2	3.098	12.908	34.273	3.098	12.908	34.273
3	2.684	11.184	45.457	2.684	11.184	45.457
4	1.851	7.713	53.170	1.851	7.713	53.170
5	1.772	7.384	60.554	1.772	7.384	60.554
6	1.396	5.817	66.371	1.396	5.817	66.371
7	1.271	5.294	71.665	1.271	5.294	71.665
8	1.016	4.231	75.896	1.016	4.231	75.896
9	.862	3.591	79.487			
10	.835	3.477	82.964			
11	.717	2.988	85.951			
12	.542	2.260	88.211			
13	.526	2.192	90.403			
14	.453	1.888	92.291			
15	.353	1.469	93.760			
16	.321	1.336	95.096			
17	.291	1.213	96.309			
18	.255	1.061	97.370			
19	.213	.889	98.259			
20	.145	.604	98.862			
21	.093	.386	99.248			
22	.091	.377	99.625			
23	.048	.200	99.825			
24	.042	.175	100.000			

Extraction Method: Principal Component Analysis.

4.4 Results

4.4.1 Sample Characterization

Table 10 below shows the sociodemographic characteristics including gender, age, and academic status of the respondents. It is clear that males constitute the overwhelming majority (85%) of the respondents. However, only twenty two of the 146 respondents were females (15%). The largest age group is 36-40 years (41.1%), followed by those aged ≤ 35 (26%), 46-50 (15.8%), 41-45 (9.6%), and ≥ 51 (7.5%). Regarding academic status, 65.8% hold an MBA or MSc., while 34.2% have a PhD or higher. This indicates a predominantly male, middle-aged group with advanced degrees.

Table 10. Sociodemographic Characteristics

Characteristics	Responses	Frequency	Percentage
Gender	Male	124	85
	Female	22	15
Age	≤ 35	38	26
	36-40	60	41.1
	41-45	14	9.6
	46-50	23	15.8
	≥ 51	11	7.5
Academic status	MBA/MSc.	96	65.8
	PhD and above	50	34.2

4.4.2 Evaluation of the Measurement Model

Each latent construct was measured using 4 to 6 items based on validated scales. The validity and reliability of these constructs were tested in the measurement model stage. Following Hair et al. (2019), we used convergent validity including factor loading score, indicator's reliability and average variance extracted (AVE) and internal consistency by employing composite reliability (CR_{pc}) and Cronbach alpha (α). Further, it was also assessed using the Fornell and Larcker criterion (Henseler et al., 2015). We found that the measurement model fits all the criteria specified (Table 11).

According to Hair et al. (2014), factor loading scores should be considered valid if they are greater than .40, and items with smaller loadings (i.e., $< .40$) should be removed. Items a4, a5, il1, and p3 were deleted due to low factor loadings ($< .40$). Items p2 and ol3 were also removed because of high inter-item correlations ($> .90$), which indicated multicollinearity issues. In conclusion, all remaining constructs exhibited convergent validity and internal consistency reliability, which allows for further analysis. Table 5 presents the overall evaluation of the criteria and corresponding values.

Table 11. Results of Measurement Model

Constructs	Measurement variables	Convergent validity			Internal consistency reliability		
		Factor loading	Indicator reliability	AVE	Composite reliability (rho_a)	Composite reliability (rho_c)	α
Academic engagement with Industry (AE)	ae1	.862	.744	.557	.672	.788	.611
	ae2	.694	.481				
	ae3	.668	.446				
Access to in-kind Resources (IA)	ia1	.926	.858	.808	.804	.894	.766
	ia2	.871	.758				
	il2	.892	.796				
Individual Learning (IL)	il3	.933	.871	.593	.860	.848	.809
	il4	.604	.364				
	il5	.584	.341				
Organizational Cultures (OC)	oc1	.915	.838	.796	.918	.921	.875
	oc2	.867	.751				
	oc3	.895	.800				
Organizational Leadership (OL)	ol1	.722	.521	.697	.778	.819	.598
	ol2	.934	.873				
	p1	.563	.317				
Strategy Participation (SP)	P4	.923	.852	.708	.977	.904	.878
	p5	.925	.855				
	p6	.899	.808				

Additionally, discriminant validity was assessed using the Fornell and Larcker criterion and the heterotrait-monotrait ratio (HTMT) (Henseler et al., 2015). According to the Fornell and Larcker criterion, the correlations between each pair of constructs should not exceed the square root of the average variance extracted (AVE). As shown in Table 12, the square root values of the AVE for each construct (along the diagonal) are greater than their respective squared correlations.

Table 12. Fornell and Larcker Criterion

	<i>AE</i>	<i>IA</i>	<i>IL</i>	<i>OC</i>	<i>OL</i>	<i>SP</i>
<i>AE</i>	.746					
<i>IA</i>	.134	.899				
<i>IL</i>	.272	.468	.770			
<i>OC</i>	.250	.037	-.105	.892		
<i>OL</i>	.094	.190	.014	.384	.835	
<i>SP</i>	.384	.124	.271	.259	.040	.842

According to Hair et al. (2019), for conceptually different constructs, the HTMT ratio should be $< .85$. To test if the HTMT values are significantly lower than the threshold, we employed the bootstrapping procedure, specifically the BCa bootstrap, with 5,000 samples and a one-tailed test at the 5% significance level. The results show that the confidence intervals for each HTMT value do not include 1 (Table 13). In conclusion, all constructs demonstrated discriminant validity.

Table 13. HTMT ratio

	AE	IA	IL	OC	OL	SP
<i>AE</i>						
<i>IA</i>	.230 [.148; .446]					
<i>IL</i>	.312 [.240; .545]	.589 [.465; .744]				
<i>OC</i>	.297 [.203; .532]	.169 [.126; .307]	.234 [.135; .435]			
<i>OL</i>	.128 [.113; .394]	.353 [.213; .578]	.227 [.177; .436]	.479 [.301; .668]		
<i>SP</i>	.451 [.315; .627]	.212 [.122; .412]	.302 [.201; .464]	.292 [.214; .398]	.160 [.133; .384]	

4.4.3 Evaluation of the Structural Model

After confirming the measurement model, the next step is evaluating the significant relationships between the constructs in the structural model (Figure 2), which helps to validate the initially proposed conceptual model. To do so, we used standard assessment criteria including variance inflation factor (VIF), the coefficient of determination (R^2), and the statistical significance and relevance of the path coefficients (Hair et al., 2019).

First, we assessed the path coefficients of the structural model (Figure 6) using VIF to ensure that the regression results were not biased by multicollinearity (Table 14). All VIF values were below the threshold of 5, as suggested in the literature (Hair et al., 2019). Since the VIF values were all below this threshold, we concluded that there was no multicollinearity issue.

Next, with multicollinearity ruled out, we assessed the R^2 value, which measures the variance explained in each of the endogenous constructs. R^2 indicates the explanatory power of the model (Hair et al., 2014; Henseler et al., 2015). The R^2 value for strategy participation in our model was .230, meaning the included variables explained 23% of the variation in strategy participation. R^2 values range from 0 to 1, with higher values indicating stronger predictive power. However, this interpretation varies across fields (Hair et al., 2019). In our case, R^2 value .230 is considered moderate in social science or business research. It implies that intensive faculty member's academic engagement with industry significantly predicts their level of participation in university strategy-making.

While this suggests practical insights to university, enhancing faculty member's engagements with industry if it must increase their level of strategy participation, it also signals that other factors are influencing strategy participation that should be explored in future research.

Additionally, we assessed how the removal of a predictor construct might affect the R² value by calculating the *f*² effect size to determine the presence of partial or full mediation. According to Hair et al. (2019), values of *f*² greater than .020, .150, and .350 represent small, medium, and large effect sizes, respectively. In our case, the relationship between organizational leadership and organizational culture had an *f*² effect size of .158, indicating a medium effect size, while the other relationships were small (Table 8).

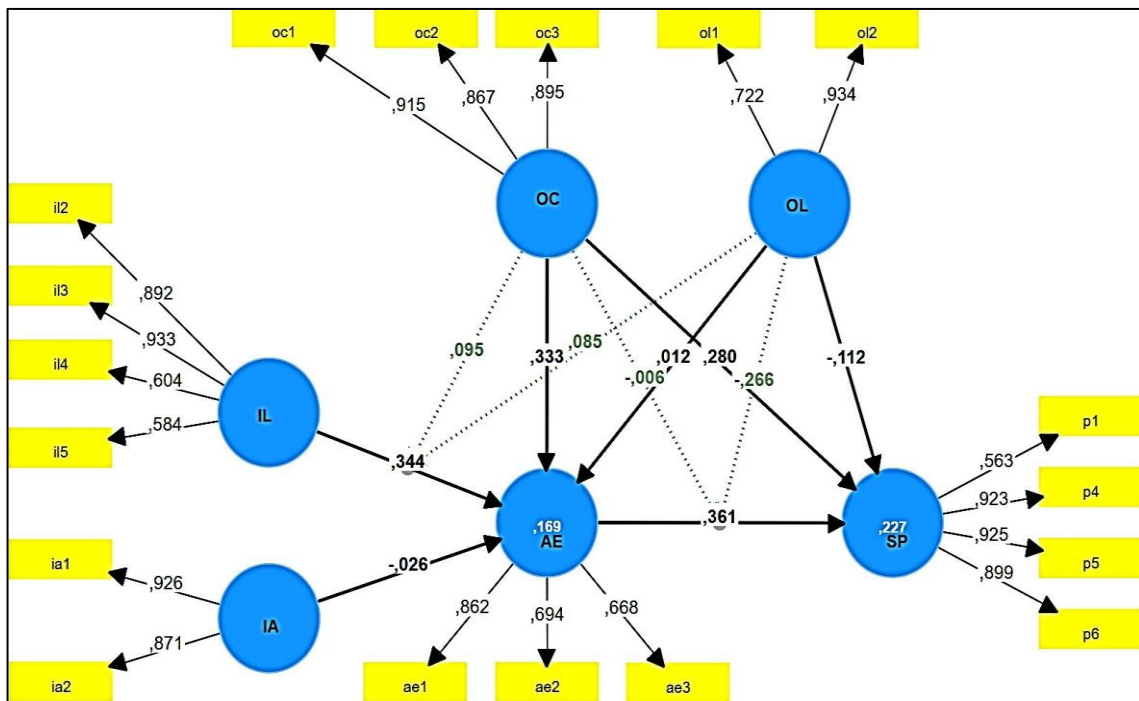


Figure 6. PLS-SEM model.

Table 14. Structural Model Results

Hypothesis	Relationship	<i>f</i> ²	VIF	Coeff. (β)	std. err.	<i>t</i>	<i>P</i> > <i>t</i>	[95% Conf. interval]	Decision
H1:	AE → SP	.155	1.083	.361	.084	4.269	.000	[.226; .498]	Supported
H2a:	IA → AE	.001	1.366	.026	.129	.201	.420	[-.197; .231]	Not supported
H2b:	IL → AE	.103	1.385	.344	.195	1.765	.039	[.171; .560]	Supported
H3a:	OC → AE	.102	1.310	.333	.111	2.985	.001	[.140; .473]	Supported
H3b:	OC → SP	.026	1.279	.160	.149	1.073	.142	[-.123; .361]	Not supported
H3c:	OC x AE → SP	.000	1.186	-.006	.111	.051	.480	[-.209; .153]	Not supported
H3d:	OC x IL → AE	.011	1.176	.095	.127	.752	.226	[.109; .310]	Not supported
H4a:	OL → AE	.000	1.283	.012	.120	.098	.461	[-.212; .182]	Not supported
H4b:	OL → SP	.014	1.234	-.116	.165	.705	.240	[-.312; .210]	Not supported
H4c:	OL x AE → SP	.054	1.233	-.266	.138	1.926	.027	[.413; .041]	Supported
H4d:	OL x IL → AE	.008	1.128	.085	.119	.712	.238	[-.140; .242]	Not supported

Note: VIF, variance inflation factor. The coefficients are significant at the following levels: *p* < .05, *p* < .01 and *p* < .001. *t*-Values for one-tailed test at alpha = .05 and 5000 subsamples: *t* (.05; 4999) = 1.645; *t* (.01, 4999) = 2.327; *t* (.005, 4999) = 2.576; and *t* (.001; 4999) = 3.091.

For H1, the structural model results show a positive relationship between the intensity of individual faculty member's academic engagement with industry and their level of strategy participation ($\beta = .361, p < .001$). Therefore, H1 is supported. Although prior studies have not statistically tested this relationship, D'Este and Perkmann (2011) showed the positive correlation between academic engagement and strategic planning. Similarly, Greven et al. (2020) emphasized the role of academics' industry experience and knowledge in contributing to the strategy-making process. More specifically, Scandura and Iammarino (2022) and Thompson (2017) found that academic engagement can enhance a faculty member's ability to generate strategic ideas, define priorities, align with university missions, and improve institutional outcomes. Hence, there is strong evidence that faculty members with intensive academic engagement in industry have higher participation in university strategy-making.

In addition, we tested whether faculty motivation to access in-kind resources influences their intensity of academic engagement with industry. However, the results show H2a is not supported ($\beta = -.026, p = .420$). This suggests that access to physical resources, such as industry facilities, does not significantly motivate faculty members to engage in university–industry collaboration. We found only one study in the Ethiopian university context (Gemedo et al., 2023) indicating that motivation to access in-kind resources varies across scientific disciplines. As our study did not focus on disciplinary differences and given the negative result, this suggests limited motivation in the context of universities in advanced economies like UK (D'Este & Perkmann, 2011), Portugal and Spain (Mascarenhas et al., 2024), where universities already provide sufficient facilities.

On the other hand, our results show that faculty members' motivation for industry learning positively affects their academic engagement with industry ($\beta = .344, p < .05$). Hence, H2b is supported. This finding aligns with previous studies conducted in Europe (Orazbayeva et al., 2020), including UK (D'Este & Patel, 2007), which also found a positive relationship between faculty member's desires to learn from industry and their level of academic engagement. Moreover, Perkmann et al. (2021) found that personal networks and professional motivations play a key role in fostering deeper collaboration with industry, and enhancing value creation. These findings suggest that, regardless of national context, faculty members who are motivated by industry learning are more likely to engage in university-industry linkage.

In addition, we proposed four hypotheses to investigate whether perceived university organizational cultures influences faculty member's academic engagement and their level of strategy participation.

First, our results show that perceived competitiveness, scientific/innovativeness, and entrepreneurial culture positively affect faculty members' intensity of academic engagement with industry ($\beta = .333, p < .01$). Therefore, H3a is supported. This aligns with Zhao et al. (2020), who found, based on survey data from Chinese scientists, that universities with a strong entrepreneurial and innovative cultures, supported by government policy, tend to foster higher levels of academic engagement. Similarly, Tseng et al. (2020) confirmed that faculty at competitive and innovation-driven universities in Taiwan are more likely to collaborate with industry.

Second, the results show a positive but not statistically significant relationship between perceived university organizational cultures and strategy participation ($\beta = .160, p = .142$). Hence, H3b is not supported. While the effect is weak, the data suggest that organizational culture may still play an indirect role in increasing strategy participation. In addition, Baird et al. (2007) reported mixed findings in prior research. They indicate that the influence of organizational cultures on strategy varies by societal context. In less egalitarian societies, its impact may be limited or cautiously expressed, while in more egalitarian settings, it may have stronger and more visible effects.

Third, the results do not support H3c ($\beta = -.006, p = .480$), indicating no significant influence of perceived university organizational cultures on the relationship between academic engagement and strategy participation. Although Greven et al. (2020) suggested that entrepreneurial orientation and network capabilities encourage academic engagement, and, in turn, faculty strategy participation, our study found no such moderating effect. Fourth, the results for H3d, also show a weak influence of organizational culture on the relationship between a faculty member's motivation for industry learning and their intensity of academic engagement ($\beta = .095, p = .226$). This contradicts findings by Allison (2019) and Panda (2022), who argue that organizational culture should support academics in leveraging industry knowledge for strategic involvement. Therefore, contextual differences may explain these results. For instance, in Germany, scientists' entrepreneurial orientation and networking capabilities foster academic engagement, potentially prompting a reevaluation of individual chairs' roles in university strategy (Greven et al.,

2020). In the USA, a strong research publication culture drives academic engagement with industry (Bikard et al., 2019). However, such a culture remains underdeveloped in least developed countries, as shown in our case study (Sassi & Mshenga, 2025).

Finally, we hypothesized whether perceived participatory leadership might influence a faculty member's intensity of academic engagement with industry and their level of strategy participation. The results show that H4a is not supported ($\beta = .012$, $p = .461$). This supports Gameda et al. (2023), who suggest that such results may be due to limited emphasis on university–industry interactions by academic middle managers, who often prioritize administrative routines over fostering industry collaboration. In highly formalized and bureaucratic university structures, the academic managers external engagements might be inhibited due to a lack of integrated vision (Al Basel & Osman, 2020). Similarly, H4b is also weak and not supported ($\beta = -.116$, $p = .240$) which aligns with Al Basel and Osman's (2020) findings on weak strategic planning practices among faculty managers. The results also indicate a common misconception, that strategic planning is only the responsibility of planning body, along with a lack of awareness and knowledge of strategic thinking among academic managers. In contrast, our results show that H4c is significant but in the opposite direction of the hypothesis ($\beta = -.266$, $p < .05$), which contradicts earlier expectations. This may happen when academic staff prioritize personal or professional goals over organizational ones (Zhao et al., 2020; Boardman & Ponomariov, 2009). It can also happen when faculty managers focus more on administrative tasks and bureaucracy than on university-industry collaboration, which may limit their involvement in strategic decision-making (Gameda et al., 2023; Bürger & Fiates, 2024). Hence, a faculty often see excessive bureaucracy and rigid procedures as a major barrier to academic engagement with industry (Bürger & Fiates, 2024). These outcomes may also reflect ideological differences and personal perspectives among faculty members toward university strategies.

Moreover, the results show H4d is not supported ($\beta = .085$, $p = .238$), which contradicts Greven et al. (2020) who found that leading an academic unit has a positive and statistically significant impact on academic engagement. The differences may be due to the presence of experienced leaders who understand industry engagement and can guide others effectively (Greven et al., 2020). Conversely, poor academic leadership may discourage faculty members from engaging with industry (Gashahun, 2020).

4.5 Discussion and Conclusions

Our findings show that a faculty member's intensity of academic engagement with industry positively affects their strategy participation. Faculty who engage deeply with industry gain valuable resources that support goal setting, priority alignment, and more effective strategic outcome.

While academic engagement with industry is driven by motivations to learn from industry and shaped by perceived competitiveness, innovation, and entrepreneurial culture, leadership approaches by deans and department heads did not show a significant direct effect. In fact, neither organizational culture nor leadership directly influenced academic engagement with industry or strategy participation. However, we observed a weak negative moderating effect: faculty who perceived leadership as overly directive were slightly less likely to translate their academic engagement with industry into strategy participation.

In the Ethiopian context, characterized by high formalization and bureaucracy, the role of academic leaders (deans, department heads) is often predominantly administrative, focused on compliance and routine rather than strategic facilitation or boundary-spanning activities. This effectively decouples leadership from its expected role as a direct enabler of engagement and participation. Similarly, while a positive organizational culture exists (as shown by its effect on engagement, H3a), its power to directly translate into strategy participation is diluted by the overwhelming structural constraints of the bureaucratic system. In essence, the institutional framework of a developing economy can neutralize the direct effects of leadership and culture, suggesting that their presumed universal effectiveness cannot be uncritically applied across all contexts.

This context also explains the surprising yet revealing negative moderating role of leadership (H4c). Rather than facilitating the translation of engagement into participation, a high perception of leadership in this setting reflects a rigid bureaucratic structure. This structure, focused on administrative control, is perceived as a barrier by faculty members, actively inhibiting their willingness to contribute mobilized resources and knowledge to the collective strategy-making process. This finding provides a crucial nuance to Collective Resource Mobilization Theory (CRMT), illustrating that formal institutional structures can sometimes stifle, rather than enable, the very mobilization processes they are meant to support.

4.6 The study implications

4.6.1 Implications for Theory

Our study offers several important contributions to the literature on academic engagement with industry and university strategy-making by examining the underexplored connection between academic engagement with industry and university strategy-making process (Perkmann et al., 2013). The findings reveal a strong and consistent relationship: faculty members who are more engaged in industry collaborations are more likely to participate actively in university strategy-making. This supports calls for institutions to encourage such engagement as a means of leveraging faculty knowledge and skills, providing practical experiences, in strategy decision -making (Mindruta, 2013; Zreen et al., 2024; Scandura & Iammarino, 2022; Thompson, 2017). We extend this understanding by demonstrating that this connection holds true even in a non-traditional contexts, such as public universities in Ethiopia. This reinforces the relevance of academic engagement with industry beyond developed systems.

Our data also confirm that a faculty member's motivation to learn from industry significantly drives engagement intensity, supporting findings from Orazbayeva et al. (2020) and D'Este and Patel (2007). This emphasizes the role of intrinsic motivation in shaping academic engagement and highlights the importance of fostering a culture that values continuous learning.

Contrary to our initial hypothesis, perceived organizational culture and leadership approaches did not significantly enhance academic engagement with industry or strategy participation. Instead, we observed a weak but notable negative moderating effect: faculty who perceived organizational leadership styles as rigid or controlling were slightly less likely to translate their academic engagement with industry into strategy participation. These results align with prior studies showing mixed findings depending on institutional maturity and context. For instance, while scientists in Germany, Portugal, and Spain often engage with industry due to strong commercialization and funding incentives (Greven et al., 2020; Mascarenhas et al., 2024), in the USA, research publication and data access are more common motivators (Bikard et al., 2019). In contrast, universities in least developed countries, often face constraints such as bureaucratized structures, limited funding and underdeveloped collaboration cultures (Gemedda et al., 2023; Sassi & Mshenga, 2025), making such engagement more difficult to institutionalize.

Despite these contextual differences, our study underscores the need to extend theoretical models of academic engagement to public universities in developing regions. Academic engagement can serve as a strategic tool for these institutions to meet broader goals, such as building a knowledge-based society, developing high-skilled labor, and transferring technology and addressing shrinking public funding (Ankrah & Omar, 2015; Gonzales & Núñez, 2021; Risi et al., 2023).

Theoretically, our study draws from and contributes to both the Resource-Based View (RBV) (Philbin, 2012; Kumar et al., 2025) and Institutional Theory (Gonzales and Núñez, 2021; Risi et al., 2023). We argue that faculty academic engagement with industry represents a key internal strategic resource, particularly when aligned with external demands from government and industry. Our study extends the theoretical understanding of academic engagement and strategy-making by testing established frameworks within an institutionally fragile and developing economy context. This context, exemplified by Ethiopia, is defined by highly formalized and bureaucratic university structures, underdeveloped university-industry linkage frameworks, and significant resource constraints despite state-driven policy ambitions (Gemedda et al., 2023; Sassi & Mshenga, 2025). Our findings challenge and enrich existing theories in two distinct ways:

First, we challenge a core assumption of the Resource-Based View (RBV). RBV posits that valuable, rare, and inimitable internal resources are the primary source of competitive advantage. Our findings confirm that resources (knowledge from industry engagement) are valuable, as shown by the positive effect on strategy participation (H1). However, the theory is challenged by the significant negative moderating effect of perceived leadership (H4d). This result demonstrates that in this context, the mere possession of resources does not guarantee their strategic deployment. Bureaucratic leadership creates an institutional void that actively hinders the conversion of individual knowledge into organizational strategy, a critical contingency often overlooked in RBV applications derived from more resourced and agile contexts.

Second, we enrich Collective Resource Mobilization Theory (CRMT) by providing nuanced insights into the drivers and inhibitors of mobilization in a challenging environment. CRMT focuses on how actors leverage relationships and networks to access and pool resources. Our finding that industry learning motivation (H2b) is a powerful driver of engagement underscores a key mechanism for resource mobilization: the pursuit

of knowledge and skills through external ties. However, we also reveal a paradox for CRMT. The theory often assumes formal structures facilitate mobilization. Our finding of a negative moderating effect of leadership (H4d) shows that the institutional structures designed to enable collective action can, in fact, stifle it. This suggests that in institutionally fragile contexts, CRMT must account for the quality of institutional leadership, which can act as a critical barrier rather than a bridge to effective resource mobilization for strategic purposes.

In sum, our study responds to the ongoing call to better understand the relationship between academic engagement with industry and its contribution to university strategy-making (Perkmann et al., 2013, 2021). By focusing on a developing-country context, we contribute new insights into how academic engagement with industry shape institutional strategy-making in environments where engagement is often constrained but potentially transformative.

4.6.2 Practical Implications

Our findings provide important insights for university leaders, policymakers, and practitioners. Hence, they should recognize the role of faculty industry engagement and its potential impact on the university strategy-making process. Academic engagement with industry produces important resources that are important for effective university strategy-making process (Mindruta, 2013; Zreen et al., 2024). These resources become even more valuable when faculty are actively participate in the process (Ankrah & Omar, 2015). Thus, institutions should not only support academic engagement with industry but also recognize its strategic relevance by integrating engaged faculty into strategy decision-making structures.

The data clearly indicate that intensive academic engagement with industry leads to higher levels of faculty strategy participation. This suggests that universities, especially in developing contexts, should rethink how they identify and involve faculty in the strategy-making process. As highlighted by Greven et al. (2020), enhancing academic engagement with industry at departmental level can create a pipeline of faculty members equipped to contribute meaningfully to institutional strategy. To enhance strategic capacity, universities, especially in resource-constrained contexts, should integrate faculty with

intensive academic engagement into core strategy formulation teams. This includes using academic engagement experience as a criterion for leadership roles.

In least-developed countries, strategy formulation processes are often top-down, making participation more challenging. However, as noted by Al-Omari and Salameh (2009) and Thompson (2017), academic leaders such as deans and department heads play a pivotal role in enabling bottom-up strategy formulation. They can create space for participation through structured practices like workshops, "away days," or virtual platforms for crowdsourced input.

Additionally, our results show that a faculty members' motivation to learn from industry strongly influences their academic engagement intensity. This highlights the importance of understanding and supporting intrinsic motivators. Universities should consider implementing a combination of financial and non-financial incentives, such as recognition, flexible workloads, or professional development opportunities, to encourage industry-oriented learning and collaboration.

4.7 Limitations and Avenues for Future Research

While this study provides valuable insights, it also presents several limitations as avenues for future research. First, theoretically, we adopted an exploratory approach due to limited prior studies on the link between academic engagement with industry and university strategy-making, particularly in non-traditional contexts. As Perkmann et al. (2013) and Greven et al. (2020) observe, empirical research in this area often lacks a strong theoretical grounding. Since academic engagement with industry often precedes commercialization (Perkmann et al., 2021), future researches should directly examine how this engagement impacts a university's commercial and strategic performance at the organizational level. One underexplored area is the relationship between academic engagement with industry and their income from industry or public sources. As D'Este and Patel (2007) suggest, such financial motivations may influence engagement patterns and could, in turn, affect traditional academic responsibilities, such as teaching and research, or promote a shift toward commercialization.

Second, contextually, because this study was conducted at a single large public university in Ethiopia, the findings may not be directly generalizable to other universities or national contexts where organizational conditions differ. Future research should include

comparative studies across universities and countries to examine how institutional contexts shape the relationship between academic engagement and faculty participation in strategy-making. Moreover, while we examined direct and moderating effects, we did not test for mediation. Future work should investigate whether academic engagement mediates relationships between personal motivations or cultural factors and strategy participation. Third, methodologically, this study also used a mix of shorter-period longitudinal and cross-sectional data. To strengthen causal inferences, future research could benefit from tracking academic engagement with industry and university strategy-making outcomes over longer timeframes using secondary data, such as the number of contract research projects or joint university-industry initiatives. However, researchers should consider the challenges of accessing such data, especially in environments with strict confidentiality policies or government-imposed restrictions (Greven et al., 2020).

Our use of convenience sampling introduces the risk of selection bias, although we used bootstrapping techniques to address under-representation. Future research should employ more robust sampling methods and larger, more diverse samples to improve validity. Finally, the exclusive use of quantitative methods limited our ability to capture deeper motivations, perceptions, and contextual nuances. A mixed-methods approach, combining surveys with interviews or focus groups could provide richer insights into why and how academic engagement with industry and university strategy-making.

We hope that our findings inspire further research, at both individual and institutional levels, particularly in underrepresented contexts. Understanding the drivers and impacts of academic engagement with industry remains critical for developing more inclusive and effective university strategy-making. Promoting academic engagement with industry can strengthen inclusive and informed strategic governance, helping build more sustainable higher education institutions.

Disclosure Statement

The authors report that there are no competing interests to declare.

References

- Al Basel, M. M., & Osman, R. W. (2020). Reality of Strategic Planning Practice from the Perspective of Education Faculty Members. *World Journal of Education, 10*(2), 127-140.
- Allison, J. (2019). Values statements: The missing link between organizational culture, strategic management and strategic communication. *International Journal of Organizational Analysis, 27*(3), 666-689.
- Al-Omari, A. A., & Salameh, K. M. (2009). Strategic planning effectiveness in Jordanian universities: Faculty member's and academic administrators' perspectives. *Research in Post-Compulsory Education, 14*(4), 415-428.
- Al-Tabbaa, O., & Ankrah, S. (2016). Social capital to facilitate 'engineered' university–industry collaboration for technology transfer: A dynamic perspective. *Technological Forecasting and Social Change, 104*, 1-15.
- Ankrah, S., & Omar, A. T. (2015). Universities–industry collaboration: A systematic review. *Scandinavian journal of management, 31*(3), 387-408.
- Azagra-Caro, J. M., Barberá-Tomás, D., Edwards-Schachter, M., & Tur, E. M. (2017). Dynamic interactions between university-industry knowledge transfer channels: A case study of the most highly cited academic patent. *Research Policy, 46*(2), 463-474.
- Baird, K., Harrison, G., & Reeve, R. (2007). The culture of Australian organizations and its relation with strategy. *International Journal of Business Studies: A Publication of the Faculty of Business Administration, Edith Cowan University, 15*(1), 15-41.
- Baker, R., Brick, J. M., Bates, N. A., Battaglia, M., Couper, M. P., Dever, J. A., ... & Tourangeau, R. (2013). Summary report of the AAPOR task force on non-probability sampling. *Journal of survey statistics and methodology, 1*(2), 90-143.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management, 17*(1), 99-120.
- Bertoletti, A., & Johnes, G. (2021). Efficiency in university-industry collaboration: an analysis of UK higher education institutions. *Scientometrics, 126*(9), 7679-7714.

- Bikard, M., Vakili, K., & Teodoridis, F. (2019). When collaboration bridges institutions: The impact of university–industry collaboration on academic productivity. *Organization Science*, *30*(2), 426-445.
- Boardman, C., Bozeman, B., & Ponomariov, B. (2010). Private sector imprinting: An examination of the impacts of private sector job experience on public manager's work attitudes. *Public administration review*, *70*(1), 50-59.
- Bürger, R., & Fiates, G. G. S. (2024). Fundamental elements of university-industry interaction from a grounded theory approach. *Innovation & Management Review*, *21*(1), 28-43.
- Confraria, H., & Vargas, F. (2019). Scientific systems in Latin America: performance, networks, and collaborations with industry. *The journal of technology transfer*, *44*(3), 874-915.
- D’Este, P., & Patel, P. (2007). University–industry linkages in the UK: What are the factors underlying the variety of interactions with industry?. *Research policy*, *36*(9), 1295-1313.
- D’este, P., & Perkmann, M. (2011). Why do academics engage with industry? The entrepreneurial university and individual motivations. *The journal of technology transfer*, *36*, 316-339.
- D’este, P., Llopis, O., Rentocchini, F., & Yegros, A. (2019). The relationship between interdisciplinarity and distinct modes of university-industry interaction. *Research Policy*, *48*(9), 103799.
- De Leeuw, E. D. (2018). Internet surveys as part of a mixed-mode design. In *Social and behavioral research and the Internet* (pp. 45-76). Routledge.
- Dias, A., & Selan, B. (2023). How does university-industry collaboration relate to research resources and technical-scientific activities? An analysis at the laboratory level. *The Journal of Technology Transfer*, *48*(1), 392-415.
- Ding, W., & Choi, E. (2011). Divergent paths to commercial science: A comparison of scientists’ founding and advising activities. *Research policy*, *40*(1), 69-80.
- Dollinger, M., Coates, H., Bexley, E., Croucher, G., & Naylor, R. (2018). Framing international approaches to university–industry collaboration. *Policy Reviews in Higher Education*, *2*(1), 105-127.
- Falqueto, J. M. Z., Hoffmann, V. E., Gomes, R. C., & Onoyama Mori, S. S. (2020). Strategic planning in higher education institutions: what are the stakeholders’ roles in the process?. *Higher Education*, *79*, 1039-1056.

- Filippetti, A., & Savona, M. (2017). University–industry linkages and academic engagement: individual behaviours and firms’ barriers. Introduction to the special section. *The Journal of Technology Transfer*, *42*, 719-729.
- Garcia, R., Araújo, V., Mascarini, S., Santos, E. G., & Costa, A. R. (2019). How the benefits, results and barriers of collaboration affect university engagement with industry. *Science and Public Policy*, *46*(3), 347-357.
- Gashahun, A. D. (2020). University–industry linkage practice in Ethiopia: A study on Debre Markos Institute of Technology, Debre Markos University. *International Journal of Scientific and Engineering Research*, *11*, 1913-1920.
- Gemeda, K. G., Bekele, M., & Tafesse, M.(2023) University Industry Research Linkage: The Case Of Adama Science And Technology University, Ethiopia.
- Gonzales, L. D., & Núñez, A. M. (2021). The ranking regime and the production of knowledge: Implications for academia. *Measuring up in higher education: How university rankings and league tables are re-shaping knowledge production in the global era*, 75-101.
- Greven, A., Strese, S., & Brettel, M. (2020). Determining scientists’ academic engagement : perceptions of academic chairs’ entrepreneurial orientation and network capabilities. *The Journal of Technology Transfer*, *45*(5), 1376-1404.
- Hailu, A. T. (2024). The role of university–industry linkages in promoting technology transfer: implementation of triple helix model relations. *Journal of Innovation and Entrepreneurship*, *13*(1), 25.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). Multivariate data analysis (7th Edn Pearson new international edition). *Harlow: Pearson: Pearson custom library*.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, *31*(1), 2-24.
- Halilem, N., Amara, N., Olmos-Peñuela, J., & Mohiuddin, M. (2017). “To Own, or not to Own?” A multilevel analysis of intellectual property right policies' on academic entrepreneurship. *Research Policy*, *46*(8), 1479-1489.
- Hayward, F. M. (2008). Strategic planning for higher education in developing countries. *Ann Arbor: Society for College and University Planning*.

- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, *43*, 115-135.
- Hitt, M. A., Beamish, P. W., Jackson, S. E., & Mathieu, J. E. (2007). Building theoretical and empirical bridges across levels: Multilevel research in management. *Academy of Management journal*, *50*(6), 1385-1399.
- Hughes, A., Lawson, C., Salter, A., & Kitson, M. (2016). The changing state of knowledge exchange: UK academic interactions with external organisations 2005-2015.
- Hunde, A. B., Yacob, E. T., Tadesse, G. A., Guesh, K., Gobaw, M. K., Dechassa, N., ... & Wondie, Y. (2023). Differentiating the Higher Education System of Ethiopia. *A National Study Report: Springer Nature*.
- Johnson, M., Monsen, E. W., & MacKenzie, N. G. (2017). Follow the leader or the pack? Regulatory focus and academic entrepreneurial intentions. *Journal of Product Innovation Management*, *34*(2), 181-200.
- Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration (ijec)*, *11*(4), 1-10.
- Kumar, V., Kumar, S., Chaudhuri, R., Chatterjee, S., Vrontis, D., & Rezaee Vessal, S. (2025). Innovation capability and R&D performance of organizations: moderating role of industry–academic knowledge transfer. *Journal of Knowledge Management*, *29*(3), 891-914.
- Liew, M. S., Shahdan, T. T., & Lim, E. S. (2012). Strategic and tactical approaches on university-industry collaboration. *Procedia-Social and Behavioral Sciences*, *56*, 405-409.
- Liew, M. S., Shahdan, T. T., & Lim, E. S. (2012). Strategic and tactical approaches on university-industry collaboration. *Procedia-Social and Behavioral Sciences*, *56*, 405-409.
- Mascarenhas, C., Mendes, T., Galvão, A. R., Marques, C. S., & Ferreira, J. J. (2024). Academic researchers' motivations to engage in university–industry collaboration in cross-border regions. *The Journal of Technology Transfer*, 1-31.
- Menter, M. (2024). From technological to social innovation: Toward a mission-reorientation of entrepreneurial universities. *The Journal of Technology Transfer*, *49*(1), 104-118.

- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American journal of sociology*, 83(2), 340-363.
- Mindruta, D. (2013). Value creation in university-firm research collaborations: A matching approach. *Strategic management journal*, 34(6), 644-665.
- Omuse, G., Kihara, P. M., & Munga, J. (2018). Determinants of strategic plan implementation in public universities: A case of selected public universities in Nairobi County, Kenya. *International Academic Journal of Human Resource and Business Administration*, 3(2), 452-477.
- Orazbayeva, B., Davey, T., Plewa, C., & Galán-Muros, V. (2020). Engagement of academics in education-driven university-business cooperation: A motivation-based perspective. *Studies in Higher Education*, 45(8), 1723-1736.
- Panda, D. K. (2022). Impact of organizational culture on strategic planning. *Management Decision*, 60(5), 1349-1368.
- Perkmann, M., King, Z., & Pavelin, S. (2011). Engaging excellence? Effects of faculty quality on university engagement with industry. *Research Policy*, 40(4), 539-552.
- Perkmann, M., Salandra, R., Tartari, V., McKelvey, M., & Hughes, A. (2021). Academic engagement : A review of the literature 2011-2019. *Research policy*, 50(1), 104114.
- Perkmann, M., Tartari, V., McKelvey, M., Autio, E., Broström, A., D'este, P., ... & Sobrero, M. (2013). Academic engagement and commercialisation: A review of the literature on university–industry relations. *Research policy*, 42(2), 423-442.
- Philbin, S. P. (2012, July). Resource-based view of university-industry research collaboration. In *2012 Proceedings of PICMET'12: Technology Management for Emerging Technologies* (pp. 400-411). IEEE.
- Puerta-Sierra, L., & Jasso, J. (2020). University-industry collaboration. an exploration of an entrepreneurial university in mexico. *Journal of technology management & innovation*, 15(3), 33-39.
- Raynard, M., Johnson, G., & Greenwood, R. (2015). Institutional theory and strategic management. *Advanced strategic management: A multi-perspective approach*, 9-34.

- Reymert, I., & Thune, T. (2023). Task complementarity in academic work: a study of the relationship between research, education and third mission tasks among university professors. *The Journal of Technology Transfer*, 48(1), 331-360.
- Risi, D., Vigneau, L., Bohn, S., & Wickert, C. (2023). Institutional theory-based research on corporate social responsibility: Bringing values back in. *International Journal of Management Reviews*, 25(1), 3-23.
- Sarstedt, M., Bengart, P., Shaltoni, A. M., & Lehmann, S. (2018). The use of sampling methods in advertising research: A gap between theory and practice. *International Journal of Advertising*, 37(4), 650-663.
- Sassi, M., & Mshenga, P. M. (2025). Unlocking the potential of university-industry collaborations in African higher education: A comprehensive examination of agricultural faculties. *Industry and Higher Education*, 39(1), 102-114.
- Scandura, A., & Iammarino, S. (2022). Academic engagement with industry: the role of research quality and experience. *The Journal of Technology Transfer*, 47(4), 1000-1036.
- Sihlobo, S., & Mbatha, S. (2023). University-industry-government research and development collaborations in public higher education institutions in South Africa. *African Journal of Science, Technology, Innovation and Development*, 15(1), 69-78.
- Ssebuwufu, J., Ludwick, T., & Beland, M. (2012). Strengthening University-Industry Linkages in Africa. *A Study on Institutional Capacities and Gaps. Association of African Universities*.
- Tartari, V., & Salter, A. (2015). The engagement gap:: Exploring gender differences in University–Industry collaboration activities. *Research Policy*, 44(6), 1176-1191.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, 18(7), 509-533.
- Thompson, C. S. (2017). An exploration of faculty involvement in and attitudes toward strategic planning in their institutions. *Educational Planning*, 24(1), 7-21.
- Tseng, F. C., Huang, M. H., & Chen, D. Z. (2020). Factors of university–industry collaboration affecting university innovation performance. *The Journal of Technology Transfer*, 45, 560-577.

- Welsh, J. F., Nunez, W. J., Petrosko, J., Welsh, J. F., Nunez, W. J., & Petrosko, J. (2005). Faculty and administrative support for strategic planning: A comparison of two-and four-year institutions. *Community College Review*, 32(4), 20-39.
- Winton, B. G., & Sabol, M. A. (2022). A multi-group analysis of convenience samples: free, cheap, friendly, and fancy sources. *International Journal of Social Research Methodology*, 25(6), 861-876.
- Zhao, Z., Broström, A., & Cai, J. (2020). Promoting academic engagement : university context and individual characteristics. *The Journal of Technology Transfer*, 45, 304-337.
- Zhuang, T., Oh, M., & Kimura, K. (2025). Modernizing higher education with industrial forces in Asia: a comparative study of discourse of university-industry collaboration in China, Japan and Singapore. *Asia Pacific Education Review*, 1-16.
- Zreen, A., Bin Abdul Hamid, A. B., Raza, M., Kanwal, N., & Khalid, R. (2024). Innovation is the key to academic excellence: exploring innovative work behavior through performance appraisal and self-efficacy. *Journal of Applied Research in Higher Education*.

CHAPTER 5: SUMMARY, SYNTHESIS, CONTRIBUTIONS, LIMITATIONS, AND CONCLUSIONS

5.1 Summary of Findings

The overarching aim of this study is to explore the strategy-making in higher education institutions (HEIs) within the modern African and Ethiopian contexts. Guided by the central research question—*what are the external and internal factors influence the strategy-making process in higher education institutions?*—the three papers collectively address this question through complementary perspectives that span the external policy environment, institutional practices, and individual-level motivations and behaviors.

Paper 1 presented a systematic review of strategy studies on African higher education. The review revealed an uneven distribution of research across the PESTLE dimensions: most studies emphasize socio-cultural and political aspects, while economic and technological factors receive less attention, and environmental and legal dimensions remain largely unexplored. From this synthesis, five key research directions emerged—higher education governance, diversification of revenue sources and university–industry partnerships, human resource and talent management in African HEIs, decolonization of African education, and the legal dimensions of university–industry collaboration. These areas are critical to advancing a comprehensive understanding of strategy-making in African higher education.

Paper 2 investigated participation in the strategy-making process at a large public university in Ethiopia. The critical discourse analysis of retrospective interview data revealed how discursive practices shape participation. The findings show that top management tends to mystify strategic concepts during formulation and communication, while middle management bureaucratizes and rationalizes the implementation phase. Academic and administrative staff, however, draw on their professional and organizational identities to interpret, influence, and contribute to the process. Although based on a single case, the findings suggest that similar dynamics—mystification, bureaucratization, and rationalization—may also constrain participation in other bureaucratic and professionally structured institutions.

Paper 3 examined how academic engagement with industry influences participation in the strategy-making process. The analysis showed that faculty members who are more engaged

in university–industry linkages also participate more actively in strategy-making. Their engagement is primarily motivated by opportunities for industry learning—gaining knowledge, skills, and experience that can inform strategic contributions. Such engagement enables faculty to generate ideas, align priorities, and contribute to institutional goals more effectively.

Together, these three papers highlight the interplay between external factors (policy, economic, and institutional contexts) and internal factors (discursive practices, power relations, and academic engagement) that shape the strategy-making process in HEIs.

5.2 Overall Discussion and Synthesis

Overall, this study demonstrates that strategy-making in higher education institutions is both contextually embedded and socially constructed, influenced by the continuous interaction between external environments, institutional structures, and individual actors.

The study provides a broad contextual foundation, illuminating how external environmental conditions—political, economic, socio-cultural, technological, legal, and environmental—frame the strategic landscape of African higher education (Farrant & Fielden, 1996; Farrant & Afonso, 1997; Brock-Utne, 2003; Ngwana, 2002; Muswaba & Worku, 2012). It shows that shifts in government policy toward knowledge-based economies, as well as processes of globalization and commercialization, create both opportunities and constraints for African HEIs (Gonzales & Núñez, 2021; Risi et al., 2023). These external pressures necessitate institutional and organizational adaptability, including communication and discursive practices, leadership styles, and organizational cultures that influence internal stakeholders' participation in strategy-making.

This study emphasizes also how communicative and discursive practices shape strategy-making within institutions. It demonstrates that inclusiveness in strategic processes depends on how meanings, power, and identities are negotiated. Mystification and bureaucratization restrict participation, while politicization and identification foster engagement. These findings underscore the need for participatory strategy-making approaches that align with institutional culture and governance traditions.

Finally, it bridges the external and internal perspectives by linking external collaborations with internal strategic behavior-individual level motivations and activities. It reveals that

academic engagement with industry, an external interface, enhances internal participation in strategy-making (Mindruta, 2013; Ankrah & Omar, 2015; Zreen et al., 2024). Faculty motivated by industry learning become key agents in connecting institutional strategy to real-world economic and social contexts.

In sum, the study advances the understanding that effective strategy-making in HEIs depends on the alignment of external environmental pressures with internal institutional and individual dynamics. The process is not linear or hierarchical but iterative and co-evolutionary, evolving through interactions between national policies, institutional governance, and individual agency. This integrative view reinforces that strategy-making in higher education is best understood as an adaptive and participatory process-where external context, institutional discourse, and academic engagement continuously shape and reshape one another.

5.3 Research Contributions

5.3.1 Theoretical Contributions

This study contributes to the literature on strategic management and higher education by extending understanding of the strategy-making process in non-business and non-Western contexts. It advances the concept of strategic subjectivity and power dominance beyond top and middle management to include lower management and employees. This aligns with Jarzabkowski et al. (2025), who advocate for broadening the definition of the strategist from the Strategy-as-Practice (SAP) perspective. The findings highlight the importance of including various internal stakeholders at different organizational levels macro, meso, and micro-for effective strategy-making (Mantere & Vaara, 2008; Falqueto et al., 2020; Hassanien, 2017).

As strategy-making is embedded in the daily activities of organizational actors, researchers should examine how strategists use communicative and discursive practices to encourage participation and coordinate actions. To foster effective participation, strategy-making must be interactive and communicative, through conferences, meetings, workshops, and forums, where strategy formation becomes part of everyday practice (Yusof et al., 2018). Broader inclusion enhances the knowledge base, legitimacy, and innovation while reducing resistance to implementation.

This study demonstrates a positive relationship between faculty academic engagement with industry and their participation in university strategy-making, with the Ethiopian context providing valuable theoretical nuance, particularly through the surprising finding of leadership's negative moderating role which challenges RBV assumptions.

5.3.2 Contextual Contributions

A key novelty of this study is its provision of context-specific insights to the strategy-making literature of HEIs. It identifies challenges and opportunities in the African higher education context, distinguishing it as one of the few studies on modern African higher education addressing such issues (Teferra & Altbach, 2004; Jowi, 2012; Moshtari & Safarpour, 2024; Alemu et al., 2024). By situating the discussion within Ethiopia's policy and funding context, the study offers valuable insights into how academic engagement with industry provides knowledge and practical experience that enrich university strategy-making. It also illustrates how the strategy-making process must balance the competing interests of government policy, industry demands, and academic values related to teaching, research, and commercialization.

5.3.3 Practical Contributions

The study provides practical contributions for higher education managers, policy decision-makers, and strategy practitioners. It highlights how emerging trends, knowledge-based economy policies, globalization and internationalization, diverse student populations, and leadership initiatives-present both opportunities and challenges (Brock-Utne, 2003; Malund & Atwebembeire, 2024; Setati et al., 2019; Strydom & Fourie, 2018; Ngcobo et al., 2024). These dynamics necessitate rethinking how strategic decisions and governance are shaped across HEIs.

By revealing how strategy discourses either hinder or promote internal stakeholder participation, the study underscores the need for leaders to understand power dynamics and stakeholder interests. Recognizing and addressing these dynamics can foster inclusive and participatory strategy-making, particularly in hierarchical and bureaucratic HEIs.

Moreover, the study demonstrates that faculty engagement with industry strengthens strategy participation and enhances the quality of strategic decisions (Mindruta, 2013; Ankrah & Omar, 2015; Zreen et al., 2024). Encouraging such engagement enables bottom-up contributions that make strategies more grounded, actionable, and aligned with societal and economic needs.

5.4 Limitations and Future Research Directions

While the study makes important contributions, several limitations must be acknowledged.

In the systematic review, it was limited by the fragmented nature of existing research, which is heavily concentrated in the South African context. The review focused mainly on public HEIs and may therefore lack insights from private institutions. The use of the PESTEL framework provided structure but may have restricted the inclusion of other relevant analytical perspectives. Future studies could incorporate private HEIs and use frameworks such as SWOT to explore internal strengths and weaknesses in greater depth.

In using a single case study and retrospective interviews for empirical analysis it may limit generalizability and introduce recall bias. Future research could expand this work through multi-case and longitudinal designs using diaries, observations, or real-time data to validate the findings.

In our empirical analysis of academic engagement and strategy participation, while a positive relationship was found between academic engagement with industry and participation in strategy-making, the study lacked a fully developed theory-driven explanation (Perkmann et al., 2013). Future research should examine the mediating roles of organizational culture, leadership, and motivation using longitudinal data to deepen our understanding of how engagement influences both commercial and non-commercial strategic performance (D'Este & Patel, 2007; Greven et al., 2020; Perkmann et al., 2021).

5.5 Overall Conclusion

This study explored the strategy-making in the higher education sector within the African context. It demonstrated how external factors-policy, economic, and socio-cultural conditions-interact with internal institutional structures, discursive practices, and academic engagement to shape strategic behavior.

The systematic review identified, political, economic and socio-cultural technological challenges and opportunities, setting the macro-level foundation for understanding strategic development in African HEIs. The discourse analysis revealed the internal mechanisms, power, communication, and identity that influence participation, while the quantitative analysis showed how academic engagement with industry enhances strategy participation and effectiveness.

Overall, the study provides a holistic view of strategy-making as a co-evolutionary process that connects external institutional pressures with internal participatory practices. They collectively answer the overarching research question: *what are the external and internal factors influence the strategy-making process in higher education institutions?*

Ultimately, this study advances theoretical, empirical, and practical knowledge on strategy-making in higher education by showing that successful strategy-making in HEIs depends on integrating external pressures with participatory internal dynamics, anchored in organizational\institutional factors and individual motivations and activities. It offers valuable insights for policymakers, university leaders, and strategy practitioners aiming to build inclusive, innovative, and contextually grounded strategic processes across higher education systems.

References

- Alemu, B. S., Gameda, B. I., & Zeleke, B. (2024). The effects of internationalization of higher education on Ethiopian public universities: a critical review of literature. *Ethiopian Journal of Science and Sustainable Development*, *11*(2), 38-50.
- Ankrah, S., & Omar, A. T. (2015). Universities–industry collaboration: A systematic review. *Scandinavian journal of management*, *31*(3), 387-408.
- Brock-Utne, B. (2003). Formulating higher education policies in Africa: The pressure from external forces and the neoliberal agenda. *Journal of Higher Education in Africa/Revue de l'enseignement supérieur en Afrique*, 24-56.
- D'Este, P., & Patel, P. (2007). University–industry linkages in the UK: What are the factors underlying the variety of interactions with industry?. *Research policy*, *36*(9), 1295-1313.
- Falqueto, J. M. Z., Hoffmann, V. E., Gomes, R. C., & Onoyama Mori, S. S. (2020). Strategic planning in higher education institutions: what are the stakeholders' roles in the process?. *Higher Education*, *79*, 1039-1056.
- Farrant, J. H., & Afonso, L. M. (1997). Strategic planning in African universities: how relevant are Northern models?. *Higher Education Policy*, *10*(1), 23-30.
- Farrant, J., & Fielden, J. (1996). Strategic planning in African universities. *New Papers on Higher Education*, *2*.
- Gonzales, L. D., & Núñez, A. M. (2021). The ranking regime and the production of knowledge: Implications for academia. *Measuring up in higher education: How university rankings and league tables are re-shaping knowledge production in the global era*, 75-101.
- Greven, A., Strese, S., & Brettel, M. (2020). Determining scientists' academic engagement : perceptions of academic chairs' entrepreneurial orientation and network capabilities. *The Journal of Technology Transfer*, *45*(5), 1376-1404.
- Hassanien, M. A. (2017). Strategic planning in higher education, a need for innovative model. *Journal of Education, Society and Behavioural Science*, *23*(2), 1-11.
- Jarzabkowski, P., Lê, J. K., Seidl, D., & Vaara, E. (2025). Two decades of revolutionizing strategy research: How strategy-as-practice illuminates the complex,

- dynamic and consequential ways of doing strategy. *Academy of Management Collections*, 4(2), 55-76.
- Jowi, J. O. (2012). African universities in the global knowledge economy: The good and ugly of internationalization. *Journal of Marketing for Higher Education*, 22(1), 153-165.
- Malund, P. N., & Atwebembeire, J. (2024). Institutional planning and unintended consequences in public higher education institutions in Uganda. *International Journal of Management (IJM)*, 15(04), 102-112.
- Mantere, S., & Vaara, E. (2008). On the problem of participation in strategy: A critical discursive perspective. *Organization science*, 19(2), 341-358.
- Mindruta, D. (2013). Value creation in university-firm research collaborations: A matching approach. *Strategic management journal*, 34(6), 644-665.
- Moshtari, M., & Safarpour, A. (2024). Challenges and strategies for the internationalization of higher education in low-income East African countries. *Higher Education*, 87(1), 89-109.
- Muswaba, M. M., & Worku, Z. (2012). Strategic management of public Further Education and Training (FET) colleges in South Africa. *African Journal of Science, Technology, Innovation and Development*, 4(3), 147-170.
- Ngcobo, X. M., Marimuthu, F., & Stainbank, L. J. (2024). Revenue sourcing for the financial sustainability of a university of technology: an exploratory study. *Cogent Education*, 11(1), 2295173.
- Ngwana, T. F. A. (2002). Higher Education Strategic Planning in Sub-Saharan Africa. *A case Study of Cameroon Education Resource Information Centre, Referencing and Resource Facility*.
- Perkmann, M., Salandra, R., Tartari, V., McKelvey, M., & Hughes, A. (2021). Academic engagement : A review of the literature 2011-2019. *Research policy*, 50(1), 104114.
- Perkmann, M., Tartari, V., McKelvey, M., Autio, E., Broström, A., D'este, P., ... & Sobrero, M. (2013). Academic engagement and commercialisation: A review of the literature on university–industry relations. *Research policy*, 42(2), 423-442.
- Risi, D., Vigneau, L., Bohn, S., & Wickert, C. (2023). Institutional theory-based research on corporate social responsibility: Bringing values back in. *International Journal of Management Reviews*, 25(1), 3-23.

- Setati, S. T., Zhuwao, S., Ngirande, H., & Ndlovu, W. (2019). Gender diversity, ethnic diversity and employee performance in a South African higher education institution. *SA Journal of Human Resource Management*, 17(1), 1-8.
- Strydom, K., & Fourie, C. J. S. (2018). The perceived influence of diversity factors on effective strategy implementation in a higher education institution. *Heliyon*, 4(4).
- Teferra, D., & Altbachl, P. G. (2004). African higher education: Challenges for the 21st century. *Higher education*, 47, 21-50.
- Yusof, N., Hashim, R. A., Valdez, N. P., & Yaacob, A. (2018). Managing diversity in higher education: A strategic communication approach. *Journal of Asian Pacific Communication*, 28(1), 41-60
- Zreen, A., Bin Abdul Hamid, A. B., Raza, M., Kanwal, N., & Khalid, R. (2024). Innovation is the key to academic excellence: exploring innovative work behavior through performance appraisal and self-efficacy. *Journal of Applied Research in Higher Education*.

Appendices

Appendix 1: Total number of interviewees and focus group discussion participants

Level	Participants	No.	Level	Participants	No.
Top Managers	Vice President for Research and Technology Transfer Assistant	1	Lower Managers	Department Head	1
	Vice President for Administration and Student Services Assistants	2		CBE Managing Director Team Leader	1
	Total	3		Postgraduate Coordinator	1
Finance Director	1	ICT Team Leader		1	
	Postgraduate Director	1	Total	4	
Middle Managers	HRM Director	1	Administrative Employees	HRM, Finance, Registrar, Strategic Planning, ICT, Test Center, Public Relations Budget Office	10
	Purchasing Director	1	Academic Employees	College of Business and Economics, Social Science, Anthropology	3
	College of Social Science Associated Dean	1	Total	13	
	School of Law	1	FGD	Business and Economics Social Science, Anthropology	4
Total	5	Total	4		

Appendix 2: Data structure

Conceptualized Dimensions	Second-order Themes	First-order Codes	Frequency
Impeding participation	Mystification	<ul style="list-style-type: none"> Top-down approach to corporate strategy development adopted by top management. Our strategy was developed by top management and committee, then it was formally communicated down and kicked-off through university-wide meetings for implementation. Strategy is developed by those that have the required know-how and the top managers. Cascading strategic plan with the help of staff with the requisite technical expertise (the employees in planning office), templates, and formal communication. Monitoring and evaluation by top management at all levels to ensure that activities and performance align with the strategic objectives and goals. Employees feel that change is imposed from the top and the strategy lacks transparency in its formulation. 	257
	Bureaucratization	<ul style="list-style-type: none"> Meeting government budgetary controls such as auditing and reporting standards and minimum enrollment capacity by the finance office. Keeping alignment with the government regulations and procedures for recruiting, promotion, and remuneration. Influencing efficient resource utilization at all service-provision centers by middle managers by making the resource requirements part of a physical plan and budget. 	83
	Rationalization	<ul style="list-style-type: none"> Mandating the use of information technology to automate the delivery systems of the service centers, including student registration, human resources, finance systems, and research processes. Acting as intermediaries to measure, interpret, and evaluate the departmental budget plans and performance reports based on the parameters stipulated in the planning and reporting templates. 	143
Enhancing participation	Operationalization	<ul style="list-style-type: none"> Strategy development is described as a bottom-up approach by top management and college deans. To prepare the strategy draft document, representatives of different colleges were initially consulted, and the draft document was sent to lower-level staff. University-wide workshops and meetings were subsequently conducted to collect feedback from a broad range of stakeholders Emphasis on employee responsibility for learning and idea generation. Justification for this strategy is based on the premise that we all need to know where we are going, how to plan, and what we are doing. Thus, in addition to awareness training, we need to develop a culture of planning and performing. Middle managers are given the responsibility for coordinating and facilitating enabling work environments to motivate their subordinates to generate ideas for strategy development and enhance their commitment to strategy implementation. 	214
	Politicizing	<ul style="list-style-type: none"> Appointments for official positions are always made by middle and top management to ensure that they maintain power and benefits. They do not trust you. Some groups are building empire in the organization, they are sometimes corrupted and may interfere in the routine department activities. I think there is always conflict of interest among them. They do not want to talk about problems, and if approached with an issue, they say “you are a fault finder” as they don’t not want to be criticized. 	43
	Localizing routines	<ul style="list-style-type: none"> Openly criticizing top management for routinizing resource access procedures. Too much red tape prevents workers from accessing the resources they need in a timely and efficient manner. Calling for top management to focus on the key strategic issues and leave everyday routines to others. Top managers need to make employees accountable and responsible for their performance. 	114
	Identification	<ul style="list-style-type: none"> Feeling sense of ownership and responsibility would motivate employees to perform to the best of their ability. 	100

Administrative employees should promote the university's good name and the pioneering status in the region for effective strategy implementation.

- Recognizing that academic culture is unique and strategies cannot be simply adopted from other organizations. Academic work is pretty clear, you teach, you conduct research, and you publish. However, academic staff seems to be overburdened by teaching, community service, and research responsibilities. There are intellectual elements to our work and most people are humble.
 - Staff at all levels should be given the opportunity to influence the college deans' interactive and integrative planning, and should be engaged in the reporting and planning aspects currently done by a separate office.
-

Appendix 3: Survey questionnaire

1. Academic engagement with Industry (AE)						
No.	Items	0 times	1-3 times	4-7 times	8-11 times	>=12 times
1.1.	Academic intensity of engagement in trainings for company employees					
1.2.	Academic intensity of engagement in meetings and conferences					
1.3.	Academic intensity of engagement in consultancy and contract research					
1.4.	Academic intensity of engagement in joint research					
1.5.	Academic intensity of engagement in creation of physical facilities (incubation, laboratory, science park)					
2. Access to in-kind Resources (AI)						
No.	Items	Not motivated at all	Not motivated at	Satisfactory	Motivated	Very motivated
2.1.	My access to research expertise					
2.2.	Access to equipment					
3. Individual Learning (IL)						
No.	Items	Not motivated at all	Not motivated at	Satisfactory	Motivated	Very motivated
3.1	My information on industry problems					
3.2	Feedback from industry					
3.3	My information on industry research					
3.4	My application of research					
3.5	Being part of a network					
4. Organizational cultures (OC)						
No.	Items	Very low	Low	Satisfactory	High	Very high
4.1	Department head/dean use participatory approach					
4.2	Leaders support academic freedom/autonomous decisions					
4.3	Leader's support of teamwork/collective responsibilities					
5. Organizational leadership approach (OL)						
No.	Items	Very low	Low	Satisfactory	High	Very high
5.1	Department head/dean use participatory approach					
5.2	Leaders support academic freedom/autonomous decisions					

5.3	Leader's support of teamwork/collective responsibilities					
6. Strategy Participation (SP)						
6.1	I participated in defining strategic goal of the department					
6.2	I participated in formulating measurement of outcomes					
6.3	I am familiar with the strategic plan of the department					
6.4	I participated in institutional planning exercise					
6.5	I refer the strategic plan to evaluate the distribution of resource					
6.6	I participate in the evaluation and offering advice on institutional strategy					
Individual characteristics						
	Age	=<35	36-40	41-45	46-50	>=51
	Academic status	BA/MA	MBA/MSc.	PhD and above		
	Gender	Male	Female			