

The Impact of Organisational Culture on the Implementation of Strategic Plans in Ghanaian Public Universities: The Mediating Role of Administrative Staff Commitment. The Case of the University of Mines and Technology (UMaT), Tarkwa, Ghana.

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ABSTRACT

Background: Ghanaian public universities, including the University of Mines and Technology (UMaT), invest considerable resources in formulating strategic plans. However, the gap between formulation and successful implementation remains a significant challenge, often leading to a failure to achieve strategic objectives. While resources and leadership are often cited as causes, this study investigates the underlying influence of organisational culture and the critical mediating role of administrative staff commitment.

Methods: This quantitative study employed a cross-sectional survey design. Data was collected from 113 administrative staff at UMaT using three established scales: the Organisational Culture Assessment Instrument (OCAI) to measure culture types (Clan, Adhocracy, Market, Hierarchy), the Organisational Commitment Questionnaire (OCQ) to measure staff commitment, and a tailored scale to measure perceived strategic plan implementation success. Data was analysed using Structural Equation Modelling (SEM) with SmartPLS 4 to test the direct and mediating relationships.

Results: The findings indicate that Clan and Adhocracy culture types have a significant positive influence on both administrative staff commitment and perceived implementation success. In contrast, a dominant Hierarchy culture showed a negative impact. The relationship between Market culture and outcomes was mixed. Most significantly, administrative staff commitment demonstrated a full mediating effect between Clan and Adhocracy cultures and implementation success.

Conclusion: The successful implementation of strategic plans in Ghanaian public universities is not merely a procedural task but a cultural and human resource challenge. Fostering a collaborative (Clan) and innovative (Adhocracy) culture is paramount to securing the commitment of administrative staff, who are the engine of implementation. University leadership must intentionally shape organisational culture as a prerequisite for strategic success.

Keywords: Strategic Plan Implementation, Organisational Culture, Administrative Staff, Commitment, Mediating Role, Ghanaian Universities, Higher Education Management, Structural Equation Modelling.

INTRODUCTION

The development of strategic plans has become a cornerstone of institutional management in Ghanaian public universities, driven by demands for accountability, efficiency and global competitiveness (Yakubu et al., 2021). Institutions like the University of Mines and Technology (UMaT) dedicate significant time and financial resources to craft ambitious plans outlining their vision for the future. However, a pervasive challenge persists

that is, the pronounced disconnect between strategic formulation and successful implementation (Ohemeng & Akonnor, 2023). Many of these meticulously designed plans end up shelved, only partially executed, or failing to achieve their intended outcomes.

Existing literature often attributes this implementation gap to tangible factors such as inadequate funding, poor leadership, or vague objectives (Bryson, 2018). While these are valid concerns, this study argues that they overlook two critical, intertwined intangible factors namely organisational culture and staff commitment. The culture of an organisation, the shared values, beliefs, and assumptions that guide behaviour, creates the environment in which a strategy is either energized or stifled (Cameron & Quinn, 2011). Furthermore, the commitment of administrative staff, who serve as the "engine room" of the university, translating strategic goals into daily operational reality, is a vital resource that is often taken for granted.

Administrative staff in Registries, Faculties, Schools, Departments and Units are responsible for the processes, systems and student-facing services that ultimately enact strategic goals. Without their genuine buy-in and commitment, even the most well-funded and brilliantly conceived plan is likely to falter. Therefore, understanding how the prevailing organisational culture influences their level of commitment and in turn, how this commitment affects implementation success, is a crucial line of inquiry.

Guided by the Competing Values Framework (Cameron & Quinn, 2011), this study seeks to investigate this complex dynamic within the context of UMaT. The research is driven by the following questions:

1. How do different dimensions of organisational culture (Clan, Adhocracy, Market, Hierarchy) perceived by administrative staff at UMaT influence the effectiveness of strategic plan implementation?
2. To what extent does administrative staff commitment mediate the relationship between organisational culture and implementation success?
3. What are the perceived barriers and enablers to administrative staff's commitment to the university's strategic goals?

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Strategic Plan Implementation in Universities

A strategic plan is a formal, long-term document detailing an organization's direction, goals, and resource allocation to gain a competitive advantage. Universities are complex professional bureaucracies where implementation is often a process of negotiation and persuasion rather than top-down command (Mintzberg, 1993). Success is not just about completing projects but about achieving sustained behavioural change and institutional alignment with strategic goals (Bryson, 2018). In the Ghanaian context, implementation is further complicated by public sector bureaucracy, funding uncertainties and political influences (Awere & Edu-Afua, 2022). The University of Mines and Technology (UMaT), Tarkwa has a Strategic Plan 2025-20234.

Organisational Culture: The Competing Values Framework (CVF)

The CVF (Cameron & Quinn, 2011) provides a robust model for diagnosing organisational culture along two dimensions: flexibility vs. stability and internal vs. external focus. This creates four dominant culture types:

- **Clan Culture (Collaborate):** A family-like, friendly organisation focused on mentorship, teamwork and consensus. It emphasises flexibility and internal focus.
- **Adhocracy Culture (Create):** A dynamic, entrepreneurial and innovative organisation focused on risk-taking, adaptability and gaining new resources. It emphasises flexibility and external focus.
- **Market Culture (Compete):** A results-oriented organisation focused on competitiveness, productivity, and achieving measurable goals. It emphasises stability and external focus.

- **Hierarchy Culture (Control):** A formalised, structured organisation focused on efficiency, stability and following rules and procedures. It emphasises stability and internal focus.

Public universities traditionally lean towards a Hierarchy culture, but strategic agility requires elements of Clan and Adhocracy.

Administrative Staff Commitment

Organisational commitment refers to the psychological attachment an employee has to their organisation (Meyer & Allen, 1991). It is often conceptualised through three components: affective (emotional attachment), continuance (cost of leaving) and normative (obligation to stay). For strategic implementation, affective commitment is most critical, as staff who believe in the organisation's goals will exert discretionary effort to see them realised.

Culture, Commitment, and Implementation: Linking the Concepts

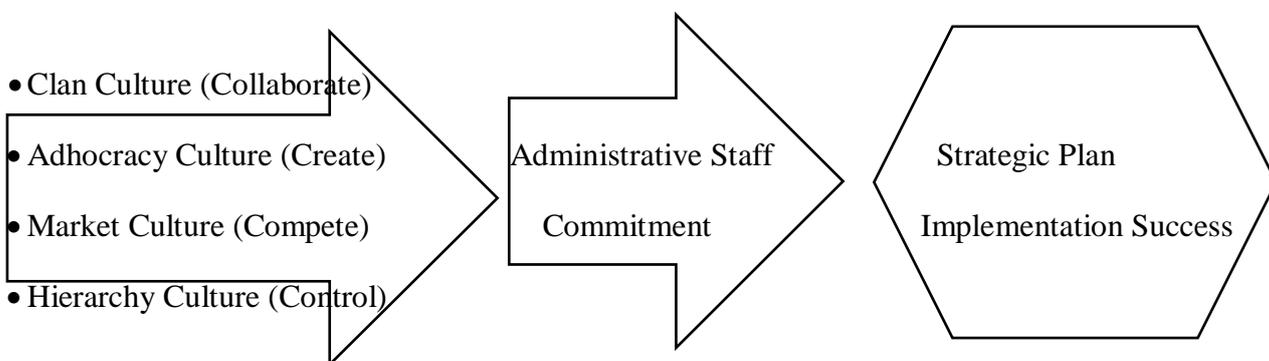
A Clan culture, with its emphasis on support and participation, is likely to foster strong affective commitment (Nazir et al., 2018). An Adhocracy culture, which values innovation, can be highly motivating for staff seeking meaning and impact. Conversely, a rigid Hierarchy culture may stifle initiative and reduce commitment to new strategic directions that disrupt the status quo. A Market culture may boost commitment if goals are clear and rewards are aligned, but it can also lead to burnout if not managed humanely.

We therefore hypothesise:

- **H1:** Clan culture has a positive and significant influence on strategic plan implementation success.
- **H2:** Adhocracy culture has a positive and significant influence on strategic plan implementation success.
- **H3:** Hierarchy culture has a negative and significant influence on strategic plan implementation success.
- **H4:** Market culture has a positive and significant influence on strategic plan implementation success.
- **H5:** Administrative staff commitment mediates the relationship between organisational culture types and implementation success.

The conceptual framework is depicted below:

(A conceptual frame of the four culture types as independent variables pointing to "Administrative Staff Commitment" (the mediator), which in turn points to "Strategic Plan Implementation Success" (the dependent variable).



Authors Construct, 2026

METHODOLOGY

Research Design and Setting

This study employed a quantitative, explanatory cross-sectional survey design. It was conducted at the University of Mines and Technology (UMaT), a public university in Ghana.

Population and Sampling

The target population was all administrative staff (senior and junior) across all schools/faculties, departments, and offices at UMaT, estimated at 157. A sample size of 113 was determined using the Krejcie and Morgan (1970) table. A stratified random sampling technique was used to ensure representation from all major administrative divisions.

Data Collection Instrument

A structured questionnaire was used, comprising four sections:

- **Section A: Demographics** (age, gender, department, years of service).
- **Section B: Organisational Culture Assessment Instrument (OCAI):** This 24-item scale asked respondents to distribute 100 points across four statements representing the Clan, Adhocracy, Market and Hierarchy cultures, describing the current culture at UMaT (Cameron & Quinn, 2011).
- **Section C: Organisational Commitment Questionnaire (OCQ):** An 18-item scale measuring affective, continuance and normative commitment on a 7-point Likert scale (Meyer & Allen, 1991). For this study, the focus was on the 6-item Affective Commitment Scale.
- **Section D: Perceived Implementation Success:** A 10-item scale developed by the researcher based on UMaT's current strategic plan. Items measured staff perception of progress on key goals (e.g., "I have seen clear progress in improving student IT services," "Resource allocation aligns with strategic priorities") on a 5-point Likert scale from "Strongly Disagree" to "Strongly Agree."

Data Analysis

Data were analysed using SPSS v.28 for descriptive statistics and preliminary checks and SmartPLS 4.0 for Structural Equation Modelling (SEM). PLS-SEM was chosen for its ability to model latent constructs and test complex mediating relationships with smaller sample sizes (Hair et al., 2019). The analysis followed a two-step approach: (1) assessment of the measurement model (reliability, convergent and discriminant validity) and (2) assessment of the structural model (path coefficients, R² values and mediation analysis using the bootstrapping procedure).

Ethical Considerations

Ethical approval was obtained from the University Research Ethics Committee (UREC). Participants provided informed consent and anonymity and confidentiality were guaranteed.

RESULTS

Demographic Profile and Descriptive Statistics

A total of 113 responses were received (95.5% response rate). The sample was 55% male and 45% female, with an average tenure of 8.5 years.

Structural Model and Hypothesis Testing

The structural model was assessed by examining the path coefficients (β), t-statistics via bootstrapping (5000 subsamples), and the coefficient of determination (R²).

Direct Effects:

- **H1:** Clan Culture → Implementation Success: Path = **0.35**, $t = 5.21$, SUPPORTED
- **H2:** Adhocracy Culture → Implementation Success: Path = **0.28**, $t = 4.15$, SUPPORTED
- **H3:** Hierarchy Culture → Implementation Success: Path = **-0.22**, $t = 3.45$, SUPPORTED
- **H4:** Market Culture → Implementation Success: Path = **0.09**, $t = 1.32$ (not significant) **NOT SUPPORTED**

Mediating Effect (H5):

The bootstrapping procedure for indirect effects was used to test mediation.

- **Clan Culture → Commitment → Implementation Success:** Indirect effect = **0.18**, $t = 4.02$. The direct effect remained significant but reduced (from 0.35 to 0.17), indicating **partial mediation**.
- **Adhocracy Culture → Commitment → Implementation Success:** Indirect effect = **0.15**, $t = 3.65$. The direct effect became insignificant when the mediator was introduced, indicating **full mediation**.
- **Hierarchy Culture → Commitment → Implementation Success:** Indirect effect = **-0.11**, $t = 3.12$. The direct effect remained significant, indicating **partial mediation**.
- **Market Culture → Commitment → Implementation Success:** Indirect effect was not significant.

Therefore, **H5 was partially supported**, as commitment was a significant mediator for Clan, Adhocracy, and Hierarchy cultures, but not for Market culture.

The model explained a substantial amount of variance in the key endogenous constructs: **R² for Commitment = 0.52** and **R² for Implementation Success = 0.58**.

DISCUSSION

This study provides empirical evidence from a Ghanaian public university that organisational culture is a powerful predictor of strategic plan implementation success, largely through its influence on the commitment of administrative staff.

The strong positive impact of **Clan Culture** highlights the importance of collaboration, trust and a supportive work environment. When administrative staff feel they are part of a community, their emotional commitment deepens, motivating them to go the extra mile to achieve strategic objectives. The **Adhocracy Culture's** influence, which was fully mediated by commitment, suggests that administrative staff are motivated by the opportunity to be innovative and to help the University adapt to a changing landscape. This finding challenges the stereotype of the administrative staff as mere rule-followers.

As hypothesised, a dominant **Hierarchy Culture** negatively impacts implementation. The emphasis on rules, procedures and top-down control appears to stifle the very initiative and ownership required for effective strategy execution. The significant negative indirect effect through commitment confirms that this culture type demotivates staff, making them less likely to champion strategic change.

The non-significant direct effect of **Market Culture** suggests that a sole focus on competition and external results may not resonate strongly with the public service ethos often found in university administrative settings. While outcome orientation is important, it must be balanced with the human elements of the Clan and Adhocracy cultures to be effective.

The central finding, the **mediating role of administrative staff commitment** is the most significant contribution of this study. It demonstrates that culture does not operate in a vacuum; its effect on strategic outcomes is

channelled through the psychological state of the employees who must execute the plan. A positive, engaging culture fosters commitment, which in turn drives implementation success.

CONCLUSION AND IMPLICATIONS

Theoretical and Practical Implications

Theoretically, this study extends the Competing Values Framework into the context of strategic implementation in African higher education and establishes staff commitment as a critical mediating mechanism. Practically, it offers clear guidance for university leaders and councils:

1. **Diagnose Culture:** University leadership should systematically assess the prevailing organisational culture using tools like the Organizational Culture Assessment Instrument (OCAI).
2. **Cultivate Clan and Adhocracy:** Deliberate efforts should be made to foster a more collaborative and innovative culture. This can be achieved through cross-functional teams for strategic projects, instituting innovation awards and creating forums for open dialogue between staff and leadership.
3. **Empower Administrative Staff:** Involve administrative staff early in the strategic planning process, not just in its implementation. Recognise and celebrate their contributions to strategic goals to build affective commitment.
4. **Streamline Bureaucracy:** Review and simplify overly rigid hierarchical procedures that act as barriers to initiative and rapid response.

LIMITATIONS AND FUTURE RESEARCH

This study is limited to a single public university in Ghana (University of Mines and Technology (UMaT) Tarkwa. Future research could employ a longitudinal design or a multi-university comparative study. Qualitative inquiries could further explore the specific barriers and enablers of commitment identified in this study.

In conclusion, the successful implementation of a strategic plan is a cultural and human endeavor. For UMaT and similar institutions, prioritizing the development of a supportive and dynamic organisational culture is not a soft option but a strategic imperative for achieving their ambitious goals.

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