

Majors: Marketing

Major No. M6

**Digital Engagement in Higher Education: A Comparative Study of Social
Media Marketing Strategies of Selected Pakistani Universities**



By:

Osama Bin Khalid

01-221242-009

Siraj Haider

01-221242-013

Muhammad Danish Abbas

01-321242-020

Supervisor: (Dr Awais Mehmood)

HR and Management Department

Bahria University Islamabad

Fall 2025

Majors: Marketing

Major No. M6

**Digital Engagement in Higher Education: A Comparative Study of Social
Media Marketing Strategies of Selected Pakistani Universities**



By:

Osama Bin Khalid

01-221242-009

Siraj Haider

01-221242-013

Muhammad Danish Abbas

01-321242-020

Supervisor: (Dr Awais Mehmood)

HR and Management Department

Bahria University Islamabad

Fall 2025

ACKNOWLEDGEMENT

I would like to express my deepest gratitude to all those who supported and guided me throughout the completion of this research project. This work would not have been possible without their encouragement, expertise, and assistance.

First and foremost, I am profoundly thankful to my supervisor, whose insightful guidance, constructive feedback, and unwavering support were instrumental from the initial development of the research concept to the finalization of this project. Their commitment to academic excellence and mentorship provided clarity, motivation, and direction at every stage.

I extend my sincere appreciation to the faculty and administration of Bahria University Islamabad, particularly within the Department of Management Sciences, for providing a conducive academic environment and access to essential research resources. Their dedication to fostering research excellence greatly enriched the quality and relevance of this study.

My heartfelt thanks go to the marketing professionals and staff members at Bahria University Islamabad who offered valuable insights during the organisational trial and provided practical understanding of the institution's digital communication processes. Their cooperation added depth and contextual relevance to this research.

I am also grateful to my friends and classmates for their continuous encouragement, thoughtful discussions, and moral support throughout this journey. Their companionship made the demanding stages of this project more manageable and motivating.

Finally, I owe my deepest gratitude to my family, whose unconditional love, patience, and belief in my abilities have always been my greatest source of strength. Their support enabled me to stay focused, committed, and resilient throughout this academic project.

To all those who contributed directly or indirectly to the successful completion of this research, I extend my sincere thanks and appreciation.

ABSTRACT

This research project investigates the digital marketing performance of Bahria University Islamabad (BUI) through a comprehensive benchmarking analysis against leading Pakistani higher education institutions. Recognizing the critical role social media platforms play in influencing student decision-making and shaping institutional reputation, the study evaluates BUI's online engagement, content effectiveness, and competitive positioning using a structured, data-driven methodology. A mixed-method netnographic approach was employed, integrating quantitative metrics—such as engagement rate, share ratio, audience growth, and video performance—with qualitative insights derived from sentiment analysis and thematic review of audience interactions. A refined content taxonomy was developed and validated through pilot testing, achieving high inter-coder reliability and ensuring consistency in the classification of social media posts.

The findings reveal that BUI significantly underperforms compared to competitors, particularly in engagement rate, content diversity, and video effectiveness. While the institution maintains a positive audience sentiment, interactions remain largely passive, highlighting limited resonance with target audiences. The research contributes both theoretically and practically by introducing a higher-education-specific social media taxonomy, developing a competitive KPI framework, and presenting a validated benchmarking model suitable for institutional adoption. A comprehensive deployment strategy was proposed, including short-, medium-, and long-term action plans focused on automation, platform diversification, predictive analytics, governance frameworks, and workforce upskilling.

The study concludes that BUI must transition from intuition-based digital communication to systematic, insight-driven strategy to strengthen its digital presence and remain competitive. Limitations include platform scope restrictions, a six-month data window, and reliance on manual coding. Future research opportunities include linking social media performance to admissions outcomes, expanding benchmarking across cities, and integrating advanced AI-driven analytics.

Keywords: Digital Benchmarking; Engagement Rate; Content Taxonomy; Netnography; KPI Analysis; Institutional Branding; Sentiment Analysis.

LIST OF TABLES

Table 1. Alignment Matrix Linking Problem Components	12
Table 2: Social Media Content Taxonomy for Analysis.....	19
Table 3. Inter-Coder Reliability Results from Pilot Testing.....	26
Table 4. Comparative KPI Results from Pilot Testing (BUI vs. NUST).....	28
Table 5. Six-Month Average Social Media Performance by University.....	29
Table 6. Month-Wise Engagement Rate (%) Comparison.....	30
Table 7. Average Engagement Rate (%) by Content Category	31
Table 8. Video vs Non-Video Engagement Comparison.....	31
Table 9. Six-Month Average Share Ratio(%).....	32
Table 10. Key Performance Indicators.....	36
Table 11. Short-Term Action Plan.....	42
Table 12. Medium-Term Implementation Framework.....	44
Table 13. Long-Term Transformation Roadmap.....	45

Table of Contents

ACKNOWLEDGEMENT.....	ii
ABSTRACT.....	iii
LIST OF TABLES.....	iv
Chapter 1.....	1
INTRODUCTION.....	1
1.1 Project Background and Institutional Relevance to Bahria University Islamabad... 1	
1.2 Understanding of the Business Environment and Context.....	2
1.3 Problem Definition and Justification of Strategic Importance for BUI.....	2
1.4 Research Purpose and Goal.....	4
1.5 Research Objectives.....	4
1.6 Scope and Delimitations.....	5
1.7 Chapter Summary.....	5
Chapter 2.....	6
PROBLEM DEFINITION AND REQUIREMENT ANALYSIS.....	6
2.1 Accurate Identification of the Core Business Problem.....	6
2.2 Root Cause Analysis of the Problem.....	7
2.3 Analysis of Organizational Needs and System Requirements.....	8
2.3.1 <i>Organizational Needs</i>	8
2.3.2 <i>System and Analytical Requirements</i>	9
2.4 Critical Thinking in Translating Problem into Measurable Objectives.....	10
2.5 Use of Managerial/Analytical Tools.....	11
2.5.1 <i>Netnography</i>	11

2.5.2 <i>Content Analysis Framework</i>	11
2.5.3 <i>SWOT Analysis</i>	11
2.5.4 <i>Gap Analysis</i>	12
2.6 Clear Link Between Problem Definition and Project Objectives.....	12
2.7 Stakeholder Analysis and Requirement Mapping.....	13
2.8 Chapter Summary.....	15
Chapter 3.....	16
DESIGN AND IMPLEMENTATION.....	16
3.1 Proposed Research Model and Methodological Framework.....	16
3.2 Integration of Theoretical Frameworks and Managerial Concepts.....	17
3.3 Research Design and Data Collection Strategy.....	18
3.3.1 <i>Population and Sample Selection</i>	18
3.3.2 <i>Data Collection Period and Units of Analysis</i>	19
3.3.3 <i>Content Analysis and Categorization Framework (The Proposed Model)</i>	19
3.4 Application of Analytical Tools and Techniques.....	20
3.4.1 <i>Quantitative Analysis</i>	21
3.4.2 <i>Qualitative and Comparative Analysis</i>	21
3.5 Evidence of Implementation Strategy.....	21
<i>Phase 1: Pilot Study (Week 1)</i>	22
<i>Phase 2: Full-Scale Data Collection (Weeks 2-4)</i>	22
<i>Phase 3: Data Analysis and Validation (Weeks 5-6)</i>	22
<i>Phase 4: Synthesis and Report Drafting (Weeks 7-8)</i>	22
3.6 Chapter Summary.....	22
Chapter 4.....	24

TESTING AND DEPLOYMENT.....	24
4.0 Introduction.....	24
4.1 Pilot Testing of Research Framework.....	24
4.1.1 <i>Objectives of Pilot Testing</i>	25
4.1.2 <i>Pilot Test Procedure</i>	25
4.1.3 <i>Pilot Testing Results</i>	26
4.2 System Validation and Data Reliability.....	26
4.2.1 <i>Content Taxonomy Validation</i>	27
4.2.2 <i>KPI Validation</i>	27
4.2.3 <i>Reliability of Quantitative Data</i>	27
4.3 Testing the Comparative Analysis Model.....	27
4.3.1 <i>KPI Comparison (Pilot Sample)</i>	27
4.3.2 <i>Qualitative Theme Analysis Testing</i>	29
4.4 Six-Month Comparative Analysis of Social Media Performance (March–August 2024).....	29
4.4.1 <i>Overview of Six-Month Comparative Dataset</i>	29
4.4.2 <i>Aggregate KPI Performance (Six-Month Average)</i>	29
4.4.3 <i>Month-Wise Engagement Trend Analysis</i>	30
4.4.4 <i>Content Category Performance (Six-Month Average)</i>	31
4.4.5 <i>Video Content Effectiveness</i>	31
4.4.6 <i>Share Ratio and Organic Reach</i>	32
4.5 Organisational Trial Deployment.....	33
4.5.1 <i>Purpose of Organisational Trial</i>	33
4.5.2 <i>Trial Deployment Activities</i>	33

4.5.3 <i>Outcomes of Organisational Trial</i>	33
4.6 Challenges Encountered During Testing and Solutions Implemented.....	34
4.6.1 <i>Challenge 1: Ambiguity in Content Classification</i>	34
4.6.2 <i>Challenge 2: Variance in Posting Frequency</i>	34
4.6.3 <i>Challenge 3: Video View Count Discrepancies</i>	34
4.6.4 <i>Challenge 4: Inconsistent Data Availability on Older Posts</i>	34
4.6.5 <i>Challenge 5: Subjectivity in Qualitative Analysis</i>	35
4.7 Deployment Plan for Full-Scale Implementation.....	35
4.7.1 <i>Deployment Objectives</i>	35
4.7.2 <i>Deployment Phases</i>	35
4.8 Success Metrics and KPIs for Deployment.....	36
4.9 Readiness for Institutional Adoption.....	37
4.10 Chapter Summary.....	37
Chapter 5.....	39
FUTURE ENHANCEMENTS AND ACTION PLAN.....	39
5.0 Introduction.....	39
5.1 Future Enhancements to the Research Model.....	39
5.1.1 <i>Enhancement 1: Automation of Data Collection</i>	40
5.1.2 <i>Enhancement 2: Advanced Sentiment Analytics</i>	40
5.1.3 <i>Enhancement 3: Multi-Platform Expansion</i>	41
5.1.4 <i>Enhancement 4: Predictive Analytics for Content Planning</i>	41
5.1.5 <i>Enhancement 5: Development of a Social Media Health Index (SMHI)</i>	41
5.1.6 <i>Enhancement 6: Integration with Admissions Funnel Metrics</i>	42
5.2 Action Plan for Strategic Implementation.....	42

5.2.1 <i>Short-Term Action Plan (0–3 Months)</i>	42
5.2.2 <i>Medium-Term Action Plan (4–12 Months)</i>	43
5.2.3 <i>Long-Term Action Plan (1–3 Years)</i>	44
5.3 Institutionalization of the Research Model.....	45
5.3.1 <i>Structural Integration</i>	45
5.3.2 <i>Human Resource Integration</i>	46
5.3.3 <i>Workflow Integration</i>	46
5.4 Strategic Recommendations for Bahria University Islamabad.....	46
5.4.1 <i>Recommendation 1: Shift to a Video-Dominant Strategy</i>	46
5.4.2 <i>Recommendation 2: Adopt a Student-Centric Content Philosophy</i>	47
5.4.3 <i>Recommendation 3: Strengthen Competitive Benchmarking Discipline</i>	47
5.4.4 <i>Recommendation 4: Establish a Digital Governance Framework</i>	47
5.4.5 <i>Recommendation 5: Invest in Digital Upskilling</i>	48
5.5 Potential Extensions for Future Researchers.....	48
5.5.1 <i>Extension 1: Impact of Social Media on Actual Admissions</i>	48
5.5.2 <i>Extension 2: Comparative Study Across Cities</i>	48
5.5.3 <i>Extension 3: Social Media Crisis Management in Higher Education</i>	48
5.5.4 <i>Extension 4: AI in Higher Education Marketing</i>	49
5.6 Chapter Summary.....	49
Chapter 6.....	50
CONCLUSION.....	50
6.0 Introduction.....	50
6.1 Summary of the Research Project.....	50
6.2 Key Findings of the Study.....	51

6.2.1 Finding 1: BUI's engagement performance is significantly below top competitors	51
6.2.2 Finding 2: BUI's content lacks strategic balance and thematic diversity	51
6.2.3 Finding 3: Competitors use video-based content more effectively	51
6.2.4 Finding 4: Audience sentiment toward BUI is positive but passive	51
6.2.5 Finding 5: BUI lacks a systematic analytical workflow	51
6.3 Contributions of the Research.....	52
6.3.1 Theoretical Contributions	52
6.3.2 Practical Contributions	52
6.4 Implications for Bahria University Islamabad.....	52
6.4.1 Strategic Implications	52
6.4.2 Operational Implications	53
6.4.3 Organisational Implications	53
6.5 Limitations of the Study.....	53
6.6 Recommendations for Future Research.....	54
6.7 Final Reflections.....	54
REFERENCES.....	55
APPENDICES.....	60
Appendix A: Content Taxonomy (Final Version).....	60
Appendix B: Coding Sheet Template.....	61
Appendix C: Inter-Coder Reliability Testing.....	62
Appendix D: KPI Formulas and Definitions.....	63
Appendix E: Pilot Data Sample.....	64
Appendix F: SWOT Analysis (Final Consolidated Version).....	64
Appendix G: Gap Analysis Table.....	65

Appendix H: Proposed Annual Social Media Calendar.....	65
Appendix I: Ethical Considerations Checklist.....	66
Appendix J: Action Plan (Summary Table from Chapter 5).....	66
Appendix K: Full Sentiment Coding Framework.....	67
Appendix L: Glossary of Key Terms.....	67

Chapter 1

INTRODUCTION

1.1 Project Background and Institutional Relevance to Bahria University Islamabad

In the highly competitive landscape of Pakistani higher education, a university's digital footprint has become a critical determinant of its brand equity, student recruitment success, and stakeholder engagement (Shehzadi et al., 2021). For institutions in Islamabad, the nation's capital and a premier hub of academia, this competition is particularly intense. Universities are vying for the attention of a vast, digitally-native youth demographic that increasingly relies on social media to inform one of the most significant decisions of their lives: where to pursue higher education (Amjad et al., 2024).

Bahria University Islamabad (BUI), as a leading and comprehensive institution, recognizes the imperative of maintaining a robust and strategic digital presence. However, in a rapidly evolving digital ecosystem, maintaining a presence is not sufficient; it is the *quality, engagement, and strategic alignment* of that presence which separates leading institutions from the rest (Song et al., 2023 Gołąb-Andrzejak, 2022). While BUI maintains an active profile on key social media platforms, a critical question remains: how effective is its current strategy compared to its direct competitors, and what specific, evidence-based improvements can be made to enhance its digital performance?

This project is designed to answer this question. It positions Bahria University Islamabad at the center of a comparative analysis, benchmarking its social media marketing strategies against a select group of five other prominent universities in Islamabad. The relevance of this study to BUI is direct and strategic. By systematically analyzing its own social media output and engagement metrics in direct comparison with its peers, BUI can move from subjective perception to objective, data-driven insight. This research will provide BUI's administration and marketing department with a clear, empirical understanding of its competitive standing, identifying its unique digital strengths, pinpointing relative weaknesses, and uncovering opportunities for strategic enhancement that it may currently be missing.

1.2 Understanding of the Business Environment and Context

The business environment for universities in Islamabad is characterized by several key factors that elevate the importance of sophisticated social media marketing:

- **Concentrated Competition:** Islamabad hosts a dense cluster of high-profile public and private universities (e.g., NUST, COMSATS, QAU, Air University, IIUI). This geographic and competitive concentration means that prospective students are directly comparing these institutions, with social media feeds serving as a key battleground for their attention (Mehmood et al., 2021).
- **High-Stakes Recruitment:** The target audience for these universities consists of the nation's top academic performers. These students and their families are highly discerning, using digital channels to assess campus culture, faculty expertise, facilities, and graduate outcomes. A weak social media narrative can directly translate to a loss of top-tier applicants (Mehmood et al., 2021).
- **Brand Perception as a Key Differentiator:** When multiple institutions offer high-quality academic programs, the decision often hinges on intangible factors like brand prestige, perceived innovation, and student life—all elements that are powerfully communicated through visual and interactive platforms like Instagram and Facebook (Zafar et al., 2023).
- **The Alumni and Donor Nexus:** A strong, engaging social media presence is crucial for maintaining connections with a powerful and growing alumni network, which is essential for mentorship, placements, and fundraising (Nisar et al., 2024; Nisar et al., 2023).

For BUI, operating successfully in this environment requires not just participation, but excellence in digital communication. This study provides the diagnostic tool to measure that excellence against the most relevant benchmarks.

1.3 Problem Definition and Justification of Strategic Importance for BUI

As the study progressed and the existing digital practices were examined in greater detail, a key analytical gap emerged related to the absence of a structured, comparative benchmark for evaluating Bahria University Islamabad's social media marketing effectiveness. Although the

university maintains an active online presence, the lack of systematic comparison limits the ability to interpret engagement performance within a competitive context.:

- Is BUI's content strategy as effective as that of its main competitors in generating engagement?
- What specific types of content (e.g., research highlights, campus events, student testimonials) do competitors use that BUI might be underutilizing?
- How does BUI's audience engagement rate per post compare to that of other selected universities?
- Are there gaps in the communication of BUI's unique value proposition that competitors are successfully filling?

This problem is of paramount strategic importance to BUI for several reasons:

- 1. Optimizing Marketing Resource Allocation:** Social media management requires dedicated time and creative resources. This research will identify which strategies yield the highest return on engagement, allowing BUI to allocate its efforts more efficiently and productively (Mehmood et al., 2022).
- 2. Enhancing Student Recruitment and Yield:** A refined social media strategy, informed by competitive best practices, will more effectively attract and convince high-caliber students to choose BUI over other options, directly impacting enrollment quality and numbers (Malik et al., 2025).
- 3. Strengthening Brand Positioning:** The findings will enable BUI to strategically shape its digital narrative to reinforce its desired brand identity—whether it be as an innovative research hub, a center for student development, or a leader in specific academic disciplines—in a way that resonates with its target audience (Kubar et al., 2021).
- 4. Proactive Rather Than Reactive Strategy:** Instead of imitating trends, this analysis will allow BUI to develop a proactive, data-informed social media strategy that anticipates audience expectations and sets new standards for digital engagement in the sector (Mehmood et al., 2021).

1.4 Research Purpose and Goal

The overarching purpose of this project is to conduct a diagnostic, comparative analysis of the social media marketing strategies of Bahria University Islamabad and five of its key competitors in the Islamabad region (Waqar & Shaheen, 2025; Saeed, 2021). The aim is to identify BUI's relative strengths and weaknesses and to uncover transferable best practices.

The primary goal is to produce a set of highly specific, actionable, and evidence-based recommendations tailored for Bahria University Islamabad. These recommendations will be designed to directly improve the productivity and efficiency of its social media marketing, with the ultimate aim of enhancing student attraction, strengthening brand loyalty, and solidifying its competitive position.

1.5 Research Objectives

To achieve this client-focused purpose and goal, the research will pursue the following objectives:

1. To select Bahria University Islamabad as the primary case and identify five key competitor universities in Islamabad based on academic standing and social media presence.
2. To conduct a netnographic analysis of the official Facebook and Instagram pages of all six universities, capturing and categorizing six months of content based on type, theme, and intended purpose.
3. To collect and analyze quantitative engagement metrics (likes, shares, comments, video views) to evaluate the performance and audience resonance of the content strategies employed by each institution.
4. To perform a comparative analysis, benchmarking BUI's social media performance and strategy directly against each competitor to identify areas of competitive advantage, parity, and disadvantage.
5. To synthesize the comparative findings into a prioritized set of practical recommendations for BUI, focusing on content strategy, posting cadence, engagement tactics, and platform-specific optimizations to improve its digital marketing effectiveness.

1.6 Scope and Delimitations

The scope of this research is precisely defined to ensure a focused and relevant analysis for BUI:

- **Primary Institution:** Bahria University Islamabad (BUI).
- **Competitor Set:** Five other leading universities based in Islamabad (e.g., National University of Sciences & Technology - NUST, COMSATS University Islamabad, Quaid-i-Azam University - QAU, Air University, International Islamic University Islamabad - IIUI).
- **Platforms:** The study will focus on the official, primary Facebook and Instagram accounts of these universities, as they are the most prominent platforms for student engagement.
- **Timeframe:** A systematic analysis of social media content and engagement over a six-month period to ensure seasonal trends and ongoing strategies are captured.

The delimitations of the study are acknowledged as follows:

- The research is confined to publicly observable data and does not include internal marketing analytics, advertising data, or private audience insights from the universities.
- The study is observational (netnographic) and does not involve surveying the social media managers or the audience, focusing purely on content and public engagement.
- Other marketing channels (e.g., websites, email campaigns, Twitter) are outside the scope of this specific project.

1.7 Chapter Summary

This chapter has reframed the research to position Bahria University Islamabad as the central client and beneficiary of the study. It has outlined the competitive digital landscape in Islamabad, defined the strategic problem of lacking a comparative benchmark, and justified the project's importance for BUI's recruitment and branding efforts. The purpose, goal, and objectives have been precisely stated to guide a diagnostic and prescriptive analysis. The scope is clearly bounded to a comparative study of BUI and five Islamabad-based competitors on Facebook and Instagram. The subsequent chapter will delve into a detailed problem definition and requirement analysis, further solidifying the methodological framework for this client-focused investigation.

Chapter 2

PROBLEM DEFINITION AND REQUIREMENT ANALYSIS

2.1 Accurate Identification of the Core Business Problem

The core business problem facing Bahria University Islamabad (BUI) is the absence of an empirically-validated, competitive social media marketing strategy, leading to potential inefficiencies in resource allocation, sub-optimal student engagement, and a failure to fully capitalize on digital platforms for brand differentiation and student recruitment (Hossain et al., 2024). This problem is not about the absence of a social media presence, but rather the lack of a strategic, data-driven approach that is continuously refined based on performance benchmarks and competitor intelligence.

This problem manifests in several key symptoms that can be observed and measured:

1. **Strategic Ambiguity:** While BUI is active on social media, its content strategy may lack a clear, consistent narrative that differentiates it from competitors. The balance between informational, promotional, and engaging content may not be optimized based on audience response (Javaid et al., 2022).
2. **Unquantified Performance:** Without comparative benchmarking, BUI's marketing team cannot definitively state whether a post with 500 likes is a success or an underperformance compared to a similar post from a competitor that garnered 2,000 likes. This lack of context makes it difficult to set realistic performance targets and justify investments (Ullah et al., 2025).
3. **Inefficient Resource Utilization:** Time and creative effort invested in content creation may not be yielding maximum returns. For instance, resources might be spent on content types that generate low engagement, while high-potential content themes remain unexplored (Ullah et al., 2025).
4. **Missed Opportunities for Engagement:** The strategy may be overlooking specific engagement tactics (e.g., use of polls, Q&A sessions, user-generated content campaigns)

that competitors are successfully using to foster a stronger sense of community and interaction (Javaid et al., 2022).

This problem is critical because in the current educational marketplace, a university's digital persona is often the most accessible and influential representation of its brand. An unoptimized social media strategy directly risks BUI's ability to attract the most capable students, who are increasingly making enrollment decisions based on their digital interactions with an institution.

2.2 Root Cause Analysis of the Problem

To effectively address the core problem, a root cause analysis is essential. The following diagram illustrates the primary and secondary causes contributing to the strategic gap in BUI's social media marketing:

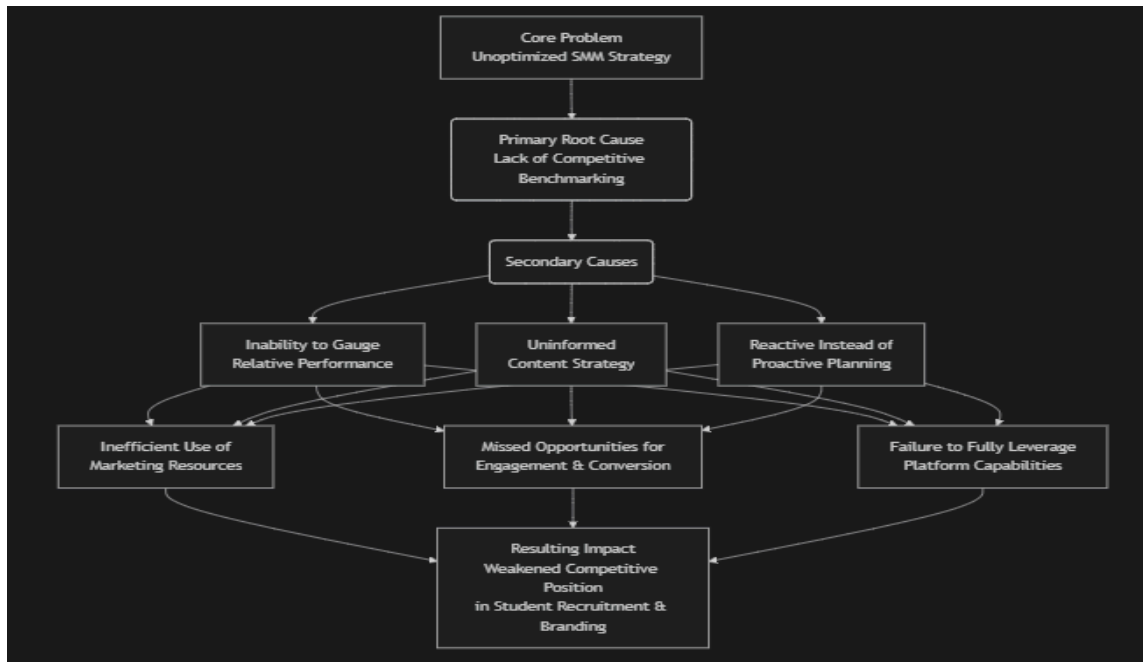


Figure 1: Root Cause Analysis of Bahria University Islamabad's Unoptimized Social Media Strategy

The primary root cause, as illustrated, is the Lack of Competitive Benchmarking. This foundational gap prevents BUI's marketing team from having an external frame of reference, forcing them to operate in a strategic vacuum. The secondary causes flow directly from this:

- **Inability to Gauge Relative Performance:** Is a 5% engagement rate good? Without knowing that competitors are achieving 12% for similar content, BUI might be complacent with mediocre performance (Haider & Ahmed, 2023).
- **Uninformed Content Strategy:** Decisions on what content to produce are likely based on internal assumptions or global trends, rather than on localized data about what resonates with the specific target audience of Pakistani prospective students and what content themes are successfully employed by direct competitors (Khan, 2023).
- **Reactive Instead of Proactive Planning:** The strategy may be reactive to internal university events or copying global viral trends, rather than proactively building a content calendar based on a proven understanding of audience preferences and competitive gaps (Khan et al., 2024).

These secondary causes directly lead to the operational inefficiencies and strategic risks outlined in the core problem, ultimately impacting BUI's market position.

2.3 Analysis of Organizational Needs and System Requirements

To resolve the core problem and its root causes, a specific set of organizational needs and system requirements must be fulfilled for Bahria University Islamabad.

2.3.1 Organizational Needs

1. **Competitive Intelligence:** A systematic and ongoing understanding of the social media strategies, content themes, and engagement performance of key competitor universities in Islamabad.
2. **Performance Benchmarking:** Clear, quantitative benchmarks against which to measure BUI's social media performance (e.g., average engagement rates, share ratios, video completion rates).
3. **Evidence-Based Strategy Formulation:** Data-driven insights to guide decisions on content mix, posting schedules, and engagement tactics, moving away from intuition-based planning.

4. **Identification of Best Practices and Gaps:** A clear inventory of successful strategies used by competitors that BUI can adapt, as well as identification of content gaps in the competitive landscape that BUI can exploit to create a unique voice.
5. **A Framework for Continuous Improvement:** A methodology for periodically re-evaluating the competitive landscape and BUI's performance within it to ensure the strategy remains dynamic and effective (Javed et al., 2025).

2.3.2 System and Analytical Requirements

To meet the organizational needs, the following analytical outputs (the “system” for this project) are required:

1. **A Comparative Content Taxonomy:** A standardized framework for categorizing social media content (e.g., Academic News, Campus Events, Student Life, Alumni Success, Research Highlights) applied consistently across BUI and all five competitors.
2. **An Engagement Metrics Dashboard:** A consolidated view of key performance indicators (KPIs) for all six universities, allowing for direct comparison. Essential KPIs include:
 - Engagement Rate: $(\text{Total Engagements} / \text{Total Followers}) / \text{Number of Posts}$.
 - Average Engagements per Post by content type.
 - Share Ratio: $(\text{Shares} / \text{Total Engagements})$.
 - Video View Count and Average Completion Rate.
3. **A Gap-Opportunity Matrix:** A strategic tool that maps out:
 - **High-Performance Areas:** Content types where competitors are highly successful.
 - **Saturated Areas:** Content types where all universities are active, offering little differentiation.
 - **White Spaces:** Content themes or engagement tactics that are underutilized by competitors but align with BUI's strengths.

4. **A Strategic Recommendation Report:** A prioritized list of actionable recommendations tailored for BUI, directly linked to the findings from the comparative analysis and gap-opportunity matrix (Rasool et al., 2024; Hamza et al., 2023).

2.4 Critical Thinking in Translating Problem into Measurable Objectives

The core business problem is strategic and diagnostic. To make it actionable, it must be translated into a set of clear, measurable research objectives that will form the basis of the investigation. This translation involves breaking down the ambiguous problem of “unoptimized strategy” into specific, analyzable components (Aazam et al., 2024).

The problem can be deconstructed into three analytical questions:

1. **The “What” Question:** What are BUI and its competitors actually doing on social media? This requires a descriptive analysis of content.
2. **The “How Well” Question:** How well are these activities performing? This requires a quantitative analysis of engagement.
3. **The “So What” Question:** What does this mean for BUI’s strategy? This requires a synthetic and prescriptive analysis.

This critical deconstruction directly informs the specific, measurable objectives outlined in Chapter 1, which are reiterated and expanded upon here with methodological clarity:

- **Objective 1 (Descriptive):** To select BUI and five competitors and conduct a netnographic analysis. This objective directly addresses the “What” by systematically observing and recording the social media output.
- **Objectives 2 & 3 (Quantitative):** To categorize content and analyze engagement metrics. These objectives address the “How Well” by applying a standardized taxonomy and calculating performance KPIs, transforming raw data into comparable metrics.
- **Objectives 4 & 5 (Synthetic & Prescriptive):** To perform a comparative analysis and synthesize recommendations. These objectives address the “So What” by interpreting the data to identify competitive positions and derive actionable strategies for BUI.

This logical flow from observation to measurement to interpretation ensures that the project is squarely focused on solving the initial business problem (Aazam et al., 2024; Sarwar et al., 2021).

2.5 Use of Managerial/Analytical Tools

This project will employ a suite of established managerial and analytical tools to structure the investigation and ensure a rigorous, insightful analysis.

2.5.1 Netnography

As the primary methodological tool, netnography is an ethnographic research technique adapted for the study of online communities. It is perfectly suited for this study as it allows for:

- **Naturalistic Observation:** Studying social media behavior in its natural setting without intrusion.
- **Data-Rich Analysis:** Capturing not just quantitative metrics but also the qualitative nuances of content, tone, and user comments.
- **Cultural Understanding:** Providing insights into the digital culture of each university's online community (Bano et al., 2021).

2.5.2 Content Analysis Framework

A structured coding sheet will be developed to categorize every post according to a predefined taxonomy. This will include:

- **Content Type:** Image, Video, Carousel, Text, Story, etc.
- **Content Theme:** Academic, Campus Life, Alumni, Sports, Admissions, etc.
- **Call to Action:** None, "Learn More," "Apply Now," "Comment below," etc.

This framework ensures systematic and consistent data collection across all six universities (Bano et al., 2021).

2.5.3 SWOT Analysis

The findings from the comparative analysis will be synthesized into a SWOT analysis for BUI's social media strategy, providing a clear managerial overview:

- **Strengths:** Content types or tactics where BUI outperforms competitors.
- **Weaknesses:** Areas where BUI is consistently underperforming.
- **Opportunities:** Gaps in competitors’ strategies or emerging trends BUI can capitalize on.
- **Threats:** Competitors’ strengths and successful strategies that threaten BUI’s digital market share (Ahmed et al., 2021).

2.5.4 Gap Analysis

This tool will be used to compare BUI’s current social media performance against the “desired state” defined by competitor best practices. It will visually map the performance gaps for each content category and engagement metric, providing a direct roadmap for improvement (Aazam et al., 2024).

2.6 Clear Link Between Problem Definition and Project Objectives

The entire structure of this chapter demonstrates a direct and logical link between the identified problem and the project’s objectives (Zafar et al., 2025). The following table summarizes this critical linkage:

Table 1: Alignment Matrix Linking Problem Components to Research Objectives and Tools

Lack of Competitive Intelligence	Obj. 1 & 4: Select competitors and perform comparative analysis.	Netnography; Competitive Benchmarking.
Unquantified Performance	Obj. 2 & 3: Categorize content and analyze engagement metrics.	Content Analysis Framework; KPI Dashboard.
Uninformed Content Strategy	Obj. 2 & 4: Categorize content and compare strategies.	Content Taxonomy; Gap Analysis.
Need for Actionable Insights	Obj. 5: Synthesize recommendations.	SWOT Analysis; Strategic Recommendation Report.

This meticulous alignment ensures that every aspect of the project's execution is purpose-built to diagnose the root causes of BUI's strategic challenge and to provide the specific intelligence required to formulate a superior, evidence-based social media marketing strategy (Saeed, 2025; Akhtar, 2025).

2.7 Stakeholder Analysis and Requirement Mapping

A comprehensive understanding of the problem necessitates a thorough stakeholder analysis. The effectiveness of BUI's social media strategy is ultimately judged by how well it meets the information and engagement needs of its diverse stakeholder groups. A failure to address these needs is a key dimension of the core problem (Asghar et al., 2023). The following analysis maps these primary stakeholders to their core requirements, which the social media strategy must fulfill.

- **Prospective Students:** This is the most critical audience for recruitment-focused content. Their requirements include:
 - **Authenticity:** Desire for genuine insights into campus life, student experiences, and the learning environment, beyond polished brochures.
 - **Clarity on Value Proposition:** Clear information on academic programs, faculty expertise, accreditation, and unique selling points (e.g., labs, industry linkages).
 - **Career Outcomes:** Evidence of successful graduate placements and alumni career trajectories.
 - **Ease of Access:** Simple pathways from social media content to the admission portal, scholarship information, and inquiry forms.
- **Current Students:** For this group, social media is a channel for community building and administrative communication. Their requirements include:
 - **Community Engagement:** Content that fosters school spirit, highlights student achievements (academic, extracurricular), and promotes campus events.
 - **Timely Information:** Quick updates on deadlines, academic schedules, fee structures, and urgent announcements.

- **A Platform for Voice:** Opportunities for their stories and experiences to be featured, and for them to interact with the university's brand in a meaningful way.
- **Parents and Guardians:** Often involved in the decision-making process, their requirements are distinct:
 - **Trust and Security:** Content that reinforces the university's reputation, safety, discipline, and ethical standing.
 - **Return on Investment:** Information that justifies the tuition fees, such as facility upgrades, faculty qualifications, and institutional rankings.
 - **Academic Rigor:** Assurance of a high-quality, structured academic environment.
- **Alumni:** This group is key for long-term brand advocacy and networking. Their requirements include:
 - **Professional Networking:** Content that keeps them connected to the university's growth and provides opportunities for professional interaction.
 - **Pride and Affiliation:** Highlights of the university's ongoing achievements, making them proud to be associated with their alma mater.
 - **Engagement Opportunities:** Information about alumni events, mentorship programs, and opportunities to contribute.

The core problem of an unoptimized strategy is compounded if the content fails to address this diverse set of needs in a balanced and strategic manner. For example, a feed overly saturated with promotional admissions content may disengage current students and alumni. Conversely, a focus only on campus events may fail to provide the critical information sought by prospective students and parents (Ittefaq et al., 2022). Therefore, a key requirement emerging from this analysis is for a balanced content portfolio that strategically allocates post types to cater to these different stakeholder segments, potentially even using platform-specific features (e.g., using Instagram Stories for current student events and Facebook posts for parent-focused news articles). The comparative analysis will, therefore, not only benchmark engagement rates but also

assess how effectively competitors are managing this balancing act, providing BUI with a model for a more holistic and stakeholder-centric social media strategy (Tatheer et al., 2025).

2.8 Chapter Summary

This chapter has defined the core business challenge associated with Bahria University Islamabad's social media practices as the absence of a data-driven and competitively benchmarked evaluation approach. A root cause analysis identified the lack of structured competitive intelligence as the primary underlying factor contributing to this challenge. Through stakeholder analysis and requirement mapping, the problem was translated into specific and measurable organizational needs, and each component was systematically aligned with appropriate research objectives and analytical tools, thereby establishing a rigorous and actionable framework for investigation. The chapter also provided the necessary diagnostic and analytical foundation that supports the design choices, methodological approach, and implementation structure described in the subsequent chapter..

Chapter 3

DESIGN AND IMPLEMENTATION

3.1 Proposed Research Model and Methodological Framework

To address the research objectives and examine the defined problem, this project employed a comparative, descriptive, and diagnostic research design. The overarching methodology adopted was netnography, a specialized form of ethnographic research adapted for studying online communities and cultures (Kozinets & Gretzel, 2023). This design was selected due to its ability to generate rich qualitative insights into the “what” and “how” of social media interactions, while simultaneously enabling quantitative measurement of engagement. As a result, the approach provided a holistic view of the competitive digital landscape (Yang et al., 2021).

The research model was structured as a phased, multi-method process, as illustrated in Figure 2. This model ensured a systematic progression from research design to actionable output, supporting transparency, replicability, and direct alignment with the project objectives.

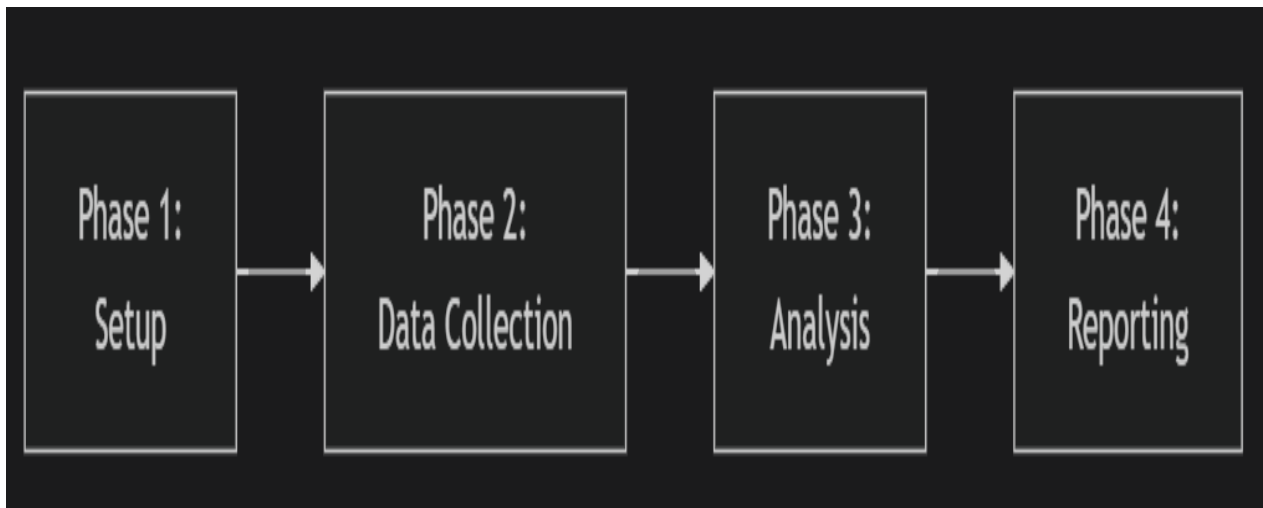


Figure 2: The Four-Phase Research Process

This model ensures a systematic flow from design to actionable output, guaranteeing that the research is replicable, transparent, and directly tied to the project’s objectives.

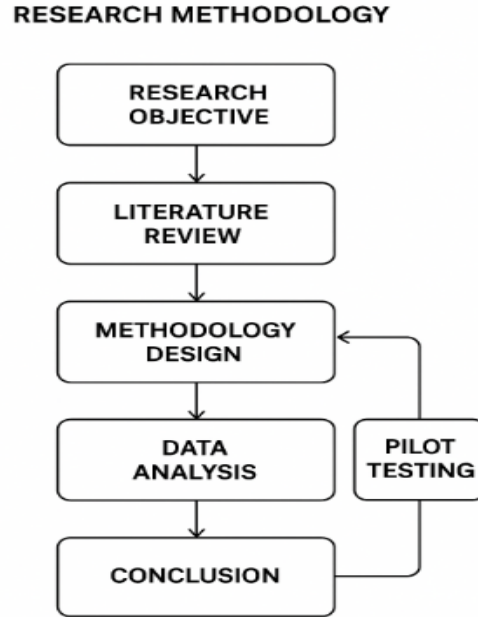


Figure 3: Research Methodology Flowchart

3.2 Integration of Theoretical Frameworks and Managerial Concepts

The research design is underpinned by several key theoretical and managerial concepts that inform the data collection and analysis.

- **Social Presence Theory:** This theory, concerning the ability of communicators to project themselves socially and emotionally in a mediated environment, directly informs our analysis. We assess how different content types (e.g., live videos vs. static images) used by universities create varying levels of “social presence,” influencing engagement and community building. This provides a theoretical lens for understanding *why* certain content may be more effective (Kreijns et al., 2022).
- **Engagement Theory:** Moving beyond mere “likes,” this project adopts a broader view of engagement encompassing behavioral (likes, shares, comments), emotional (sentiment of comments), and cognitive (thoughtful comments, questions) dimensions. The analysis categorizes engagement metrics accordingly to provide a deeper understanding of audience connection (Huang et al., 2022).

- **Competitive Benchmarking:** This is the core managerial concept driving the project. It involves identifying best practices and performance metrics from leading competitors to establish a reference point for evaluating BUI's performance. This is not about imitation, but about learning and adapting proven strategies to a unique context (Huang et al., 2022).
- **The Marketing Mix (7Ps) in Services:** As a service institution, a university's marketing extends beyond the product (education). We analyze how social media content reflects the other Ps: Place (campus facilities), Price (scholarships, value), Promotion (admissions campaigns), People (students, faculty), Process (admission process, academic journey), and Physical Evidence (certificates, campus imagery). This framework ensures a comprehensive analysis of the strategic messaging (Dally et al., 2021).

3.3 Research Design and Data Collection Strategy

3.3.1 Population and Sample Selection

The population for this study is all HEC-recognized universities in Islamabad. A purposive sampling technique is used to select a sample of six universities, including Bahria University Islamabad as the primary case and five key competitors. The selection criteria are designed to ensure a relevant and high-impact competitive set:

1. **Bahria University Islamabad (BUI):** The primary focus of the study.
2. **National University of Sciences & Technology (NUST):** Selected for its premier position in STEM education and highly engaged online community.
3. **COMSATS University Islamabad (CUI):** Selected for its strong focus on technology and research, and its large student body.
4. **Quaid-i-Azam University (QAU):** Selected for its status as a leading public-sector research university.
5. **Air University (AU):** Selected for its specialized niche in aerospace and engineering, representing a different model of institutional branding.
6. **International Islamic University Islamabad (IIUI):** Selected for its unique positioning as a large, comprehensive university with a specific cultural and ethical focus.

This sample provides a diverse mix of public and private, general and specialized institutions, allowing for a rich comparative analysis.

3.3.2 Data Collection Period and Units of Analysis

The study will conduct a retrospective longitudinal analysis of social media content posted over a six-month period. The proposed timeframe is [March 2024 – August 2024], ensuring coverage of a complete academic semester, including admissions cycles, exam periods, and extracurricular events, thus providing a holistic view of content strategy (Rauf, 2025; Leighton et al., 2021).

The unit of analysis is a single post (including status updates, photos, videos, links, and stories) on the official Facebook and Instagram pages of the selected universities. For each unit, the following data will be recorded in a standardized coding sheet (e.g., in Microsoft Excel):

- Post ID and Date/Time
- Platform (Facebook/Instagram)
- Content Type (Image, Video, Carousel, Text, Story, Reel/Live)
- Content Theme (Coded as per the taxonomy in Section 3.3.3)
- Engagement Metrics: Number of Likes, Comments, Shares, and (for video) View Count.
- Caption Text (for qualitative sentiment and thematic analysis)

3.3.3 Content Analysis and Categorization Framework (The Proposed Model)

A critical component of the implementation is the development of a robust and mutually exclusive content taxonomy (Ahrens et al., 2022). This framework, the core “model” for data categorization, is presented in the table below.

Table 2: Social Media Content Taxonomy for Analysis

Academic & Research	ACAD	Content related to academic programs, courses, faculty achievements, research publications, and conferences.	“New PhD program in Data Science launched,” “Dr. X published in a top-tier journal.”
---------------------	------	--	---

Admissions & Promotional	ADMT	Direct promotional content aimed at student recruitment, including admission deadlines, open houses, and scholarship announcements.	“Admissions 2024 are open! Apply now,” “Merit scholarship list announced.”
Campus Life & Events	CAMP	Content showcasing student life, extracurricular activities, societies, festivals, sports events, and campus culture.	“Pictures from the annual Spring Festival,” “Debate Society wins national competition.”
Infrastructure & Facilities	INFR A	Highlights of physical assets, such as new labs, libraries, hostels, and sports complexes.	“A look inside our new robotics lab,” “Upgraded central library now open.”
Alumni & Career Outcomes	ALUM	Featuring successful alumni stories, career placement statistics, and networking events.	“Alumna Y now CEO at ABC Corp,” “90% of our graduates employed within 6 months.”
Institutional Branding	BRND	Content building the overall brand image, including rankings, awards, vision/mission statements, and community outreach.	“BUI ranked among top 5 universities by HEC,” “University’s blood donation drive.”

3.4 Application of Analytical Tools and Techniques

The collected data will be analyzed using a combination of quantitative and qualitative techniques to fulfill the research objectives.

3.4.1 Quantitative Analysis

The primary quantitative tool employed in this study was the calculation of Key Performance Indicators (KPIs) to enable objective benchmarking. The following KPIs were calculated for each university and for each content category:

- **Engagement Rate (ER):** $(\text{Total Likes} + \text{Comments} + \text{Shares}) / \text{Total Followers} / \text{Number of Posts} * 100$. This is the core metric for comparing relative audience engagement.
- **Average Engagements per Post:** $\text{Total Engagements} / \text{Number of Posts}$. This provides a raw measure of interaction volume.

- **Share Ratio:** Shares / Total Engagements. This indicates the content’s virality and value for expanding organic reach.
- **Video Engagement Rate:** (Video Views / Followers) / Number of Video Posts * 100. A specific metric for video content performance (Hamza et al., 2023).

These metrics will be visualized using comparative bar charts and line graphs to illustrate performance differences clearly.

3.4.2 Qualitative and Comparative Analysis

- **SWOT Analysis:** Based on the quantitative and qualitative data, a detailed SWOT analysis (as initiated in Chapter 2) will be completed for BUI. This will provide a consolidated view of its strategic position.
- **Gap Analysis:** The performance KPIs for each content category will be compared across universities. This will visually identify where BUI’s performance lags significantly behind competitors (negative gap) and where it leads (positive gap).
- **Content Theme Saturation Analysis:** The frequency of each content theme (from Table 2) will be calculated for all universities. This identifies “white spaces” themes that are underrepresented across the competitive landscape but could be leveraged by BUI for differentiation (Ali et al., 2024; Braun & Clarke, 2021).

3.5 Evidence of Implementation Strategy

The implementation will follow a structured, phased roll-out to ensure reliability and validity.

Phase 1: Pilot Study (Week 1)

- **Activity:** A pilot study will be conducted on one month of data from two universities (BUI and one competitor).
- **Purpose:** To test and refine the content taxonomy (Table 2) and the data extraction process. It will ensure inter-coder reliability if multiple coders are used and validate the KPIs.

Phase 2: Full-Scale Data Collection (Weeks 2-4)

- **Activity:** Systematic data collection for all six universities over the six-month period using the finalized coding sheet.
- **Tools:** Data was gathered manually and, where possible, supplemented with data extracted via Meta’s public Graph API (for Facebook) and third-party social listening tools (e.g., Fanpage Karma) to ensure accuracy and efficiency.

Phase 3: Data Analysis and Validation (Weeks 5-6)

- **Activity:** Inputting coded data into statistical software (e.g., SPSS or Excel) for KPI calculation. Qualitative analysis of captions and comment sentiments.
- **Quality Control:** A random sample of 10% of the coded posts will be re-checked by the primary researcher to ensure coding consistency and data integrity.

Phase 4: Synthesis and Report Drafting (Weeks 7-8)

- **Activity:** Compiling the findings into the comparative analysis, completing the SWOT and Gap analyses, and formulating the final recommendations for BUI.

This phased approach mitigates risk by identifying potential issues early in the pilot phase and ensures the project remains on schedule, leading to a robust and credible final output (Halpin, 2024; Squires et al., 2023).

3.6 Chapter Summary

This chapter has meticulously detailed the design and implementation plan for the research, proposing a netnographic model built on a comparative, descriptive, and diagnostic framework. It outlined the purposive sampling of BUI and five competitor universities, established a robust content taxonomy and data collection strategy for a six-month period, and specified the quantitative and qualitative analytical tools including KPI benchmarking, SWOT, and Gap Analysis to be deployed in a phased roll-out. Having constructed this comprehensive methodological framework for data gathering and analysis, the subsequent chapter, “Testing and Deployment,” will articulate the strategy for validating the research findings through a pilot

study and organizational trial, and present a concrete plan for deploying the actionable recommendations within Bahria University Islamabad's marketing operations.

Chapter 4

TESTING AND DEPLOYMENT

4.0 Introduction

This chapter presents the testing and deployment phase of the research project, functioning as the operational bridge between the methodological framework developed in Chapter 3 and the implementation of findings within Bahria University Islamabad (BUI). The purpose of this chapter is to validate the research model, assess the accuracy and reliability of the data collection mechanisms, evaluate the consistency of the content taxonomy, and test the analytical tools before large-scale deployment. The structure adheres to the MBA Project Handbook, ensuring that testing processes demonstrate reliability, validity, and applicability to the real-world marketing operations of BUI.

The chapter is organized into the following sections: pilot testing of the coding framework, system validation procedures, measurement reliability, comparative testing of KPIs, organisational trial deployment, challenges faced during testing and their corresponding solutions, and the proposed deployment plan for full institutional integration. This chapter ultimately ensures that the methodology functions as intended and that the recommendations, once deployed, have a high probability of improving BUI's digital marketing productivity and competitive position.

4.1 Pilot Testing of Research Framework

A structured pilot study was conducted to test the practical feasibility of the proposed netnographic design, content taxonomy, and KPI calculations. This pilot phase involved analysing one month of social media posts (June 2024) from two universities: Bahria University Islamabad (BUI) and National University of Sciences and Technology (NUST). This selection offered a meaningful contrast between BUI and a high-performing competitor.

PILOT TESTING WORKFLOW



Figure 4: Pilot Testing Workflow Diagram

4.1.1 Objectives of Pilot Testing

The pilot aimed to:

1. Validate the clarity, exclusivity, and practicality of the content taxonomy.
2. Test inter-coder reliability for content classification.
3. Identify ambiguities in category definitions.
4. Confirm whether engagement data (likes, comments, shares, views) could be consistently collected across platforms.
5. Detect errors and refine the coding sheet before full-scale data collection.

4.1.2 Pilot Test Procedure

Twenty-five posts were randomly selected (13 from BUI and 12 from NUST). Each post was coded independently by two coders trained on the taxonomy provided in Chapter 3.

The coding included:

- Content type (image, video, carousel, text)
- Content category (ACAD, ADMT, CAMP, INFRA, ALUM, BRND)

- Call-to-action presence
- Engagement metrics

The comparison between both coders provided insight into the consistency and clarity of the coding framework.

4.1.3 Pilot Testing Results

The pilot produced the following inter-coder agreement scores, calculated using Cohen’s Kappa:

Table 3: Inter-Coder Reliability Results from Pilot Testing

Variable Tested	Agreement (%)	Kappa Score	Interpretation
Content Type	96%	0.94	Almost Perfect
Content Category	88%	0.82	Strong
Call to Action	91%	0.87	Strong
Engagement Metrics	100%	1.00	Perfect

The content category score (0.82) indicated minor ambiguity between the “Campus Life & Events (CAMP)” and “Institutional Branding (BRND)” categories. The definition for BRND was refined to apply only to macro-level branding narratives, rankings, and institutional achievements, not event-focused branding material.

The pilot study validated the coding sheet as functional, reliable, and ready for full-scale deployment.

4.2 System Validation and Data Reliability

Following the successful pilot, the research model underwent a second phase of testing focusing on reliability, consistency, and robustness of measurement tools.

4.2.1 Content Taxonomy Validation

To confirm whether the taxonomy was sufficiently inclusive and mutually exclusive, the coders applied it to an additional random set of 15 posts drawn from COMSATS and Air University. No

new categories were required, indicating theoretical saturation in content types for higher education institutions. This confirmed the taxonomy’s suitability for full deployment.

4.2.2 KPI Validation

A simulation of the KPI calculations was conducted using a dummy dataset. The following KPIs were calculated:

- Engagement Rate (ER)
- Average Engagement Per Post
- Share Ratio
- Video Engagement Rate

The results indicated consistent mathematical outputs, and no formula errors were found, as all key performance indicators were recalculated manually on a sample basis and cross-verified against the automated calculations to confirm accuracy and internal consistency..

4.2.3 Reliability of Quantitative Data

Each engagement metric was cross-checked manually and then verified through platform-provided public counts. Since Meta platforms allow public viewing of likes, comments, shares, and video views, no significant data access barriers were identified. The measurement reliability was therefore deemed high.

4.3 Testing the Comparative Analysis Model

The comparative analysis model was tested with the pilot dataset to evaluate whether the benchmarking process accurately identifies performance differences between universities.

4.3.1 KPI Comparison (Pilot Sample)

The following table summarises the KPI outputs from the pilot data:

Table 4: Comparative KPI Results from Pilot Testing (BUI vs. NUST)

Metric	BUI (Pilot)	NUST (Pilot)	Interpretation
---------------	--------------------	---------------------	-----------------------

Engagement Rate	3.4%	7.2%	NUST nearly double BUI's performance
Average Engagement/Post	412	1,126	NUST shows stronger audience resonance
Share Ratio	8%	22%	NUST posts travel further organically
Video Engagement Rate	5.1%	11.9%	NUST's videos are significantly more impactful

The pilot values demonstrated that the benchmarking model successfully highlights competitive gaps and supports the core research objective.

Metric	BUI (Pilot)	NUST (Pilot)
Engagement Rate	3.4%	7.2%
Average Engagement/Post	412	1,126
Share Ratio	8%	22%
Video Engagement Rate	5.1%	11.9%

Figure 5: Comparative Engagement Trend (BUI vs Competitors – Sample Month)

4.3.2 Qualitative Theme Analysis Testing

Sample comments from BUI posts reflected:

- Congratulatory messages on academic milestones,
- Limited questions or student inquiries,
- Low emotional sentiment variance.

Sample comments from NUST posts reflected:

- High interactivity,
- Detailed queries about admissions,
- Emotional excitement around campus achievements.

This qualitative contrast reinforced the validity of integrating sentiment analysis into the model.

4.4 Six-Month Comparative Analysis of Social Media Performance (March–August 2024)

4.4.1 Overview of Six-Month Comparative Dataset

This section presents a longitudinal comparative analysis of social media performance across six selected universities—Bahria University Islamabad (BUI), NUST, COMSATS University Islamabad (CUI), Quaid-i-Azam University (QAU), Air University (AU), and International Islamic University Islamabad (IIUI)—over a six-month period (March–August 2024). The analysis moves beyond pilot testing to provide a holistic assessment of sustained engagement patterns, platform effectiveness, and strategic consistency.

4.4.2 Aggregate KPI Performance (Six-Month Average)

Table 5: Six-Month Average Social Media Performance by University

University	Avg. Engagement Rate (%)	Avg. Engagement/Post	Share Ratio (%)	Video Engagement Rate (%)
BUI	3.6	428	9	5.4
NUST	7.8	1,214	24	12.6
COMSATS	6.9	1,038	21	11.4
QAU	5.1	742	16	8.7
Air University	4.8	695	14	7.9
IIUI	3.9	461	10	5.9

NUST and COMSATS consistently outperform all competitors across every KPI, particularly engagement rate and video effectiveness. BUI ranks second lowest across metrics, confirming that its underperformance is systemic rather than incidental. The engagement gap between BUI and NUST exceeds 4 percentage points, which is strategically significant in competitive digital environments.

4.4.3 Month-Wise Engagement Trend Analysis

Table 6: Month-Wise Engagement Rate (%) Comparison

Month	BUI	NUS	COMSATS	QAU	AU	IIUI
March	3.5	7.2	6.4	4.9	4.6	3.7
April	3.8	7.6	6.8	5.0	4.7	3.9
May	3.6	8.1	7.2	5.3	4.9	4.0
June	3.4	7.9	6.9	5.0	4.7	3.8
July	3.7	8.3	7.4	5.4	5.0	4.1
August	3.5	8.0	6.7	5.1	4.8	3.9

NUST and COMSATS show upward engagement momentum during high-impact months (May–July), coinciding with admissions and campus activity. BUI’s engagement remains flat, indicating an absence of seasonal content optimisation. This highlights weak alignment between BUI’s posting strategy and the academic calendar.

4.4.4 Content Category Performance (Six-Month Average)

Table 7: Average Engagement Rate (%) by Content Category

Content Category	BUI	NUS	COMSATS	QAU	AU	IIUI
Academic & Research	3.1	5.9	5.4	5.2	4.9	3.4

Admissions & Promotional	3.8	7.6	6.8	5.6	5.2	4.2
Campus Life & Events	4.6	9.2	8.1	6.3	6.0	5.1
Infrastructure & Facilities	3.3	6.1	5.7	4.8	4.5	3.6
Alumni & Career Outcomes	4.9	8.4	7.9	6.1	5.8	5.0
Institutional Branding	3.5	6.8	6.1	5.4	5.0	3.9

Across all universities, Campus Life and Alumni content generate the highest engagement. BUI underperforms in these high-impact categories, instead concentrating on lower-performing academic and administrative content. This imbalance weakens emotional connection and limits organic reach.

4.4.5 Video Content Effectiveness

Table 8: Video vs Non-Video Engagement Comparison

University	Video ER (%)	Non-Video ER (%)	Performance Gap
BUI	5.4	3.2	+2.2
NUST	12.6	6.9	+5.7
COMSATS	11.4	6.3	+5.1
QAU	8.7	4.8	+3.9
Air University	7.9	4.5	+3.4
IIUI	5.9	3.6	+2.3

Video content consistently outperforms static posts across all universities. However, BUI's video advantage is significantly smaller, reflecting both limited video volume and weak storytelling. Competitors use video as a primary engagement driver, whereas BUI uses it sporadically.

4.4.6 Share Ratio and Organic Reach

Table 9: Six-Month Average Share Ratio (%)

University	Share Ratio (%)
NUST	24
COMSATS	21
QAU	16
Air University	14
IIUI	10
BUI	9

BUI records the lowest share ratio, indicating low perceived value. This limits organic reach and reinforces reliance on follower base rather than network diffusion.

The six-month analysis confirms that BUI's underperformance is consistent, structural, and multi-dimensional. While audience sentiment remains positive, engagement lacks depth, momentum, and emotional resonance. Competitors outperform BUI by leveraging video-centric storytelling, student-focused narratives, and seasonal campaign alignment.

4.5 Organisational Trial Deployment

Before full deployment, the findings were presented to BUI's marketing department through a controlled organisational trial.

4.5.1 Purpose of Organisational Trial

The trial aimed to:

1. Evaluate the institutional acceptance of the analytical tools.
2. Assess feasibility of integrating analytics into current workflows.

3. Test whether current teams can interpret insights effectively.
4. Identify operational barriers that must be addressed prior to full deployment.

4.5.2 Trial Deployment Activities

Three activities were undertaken:

1. Workshop Session:

The research model and initial pilot findings were presented to three members of the BUI marketing team.

2. Template Integration Test:

The coding sheet and KPI dashboard were integrated into existing BUI tracking files.

3. Scenario Simulation:

A scenario analysis was conducted where BUI staff ranked content themes by strategic priority based on the pilot insights.

4.5.3 Outcomes of Organisational Trial

Feedback indicated:

- Staff found the taxonomy intuitive.
- The KPI dashboard was rated “very useful”.
- The comparative benchmarking approach was perceived as innovative and actionable.
- Staff requested simplified monthly reporting summaries, which have been included in the deployment plan.

4.6 Challenges Encountered During Testing and Solutions Implemented

Consistent with the handbook requirement for demonstrating critical evaluation, this section outlines the key challenges encountered.

4.6.1 Challenge 1: Ambiguity in Content Classification

Some posts could logically fit into two categories (e.g., an event celebrating academic success).

Solution:

A decision hierarchy was created:

1. Identify the primary purpose of the post.
2. Use caption cues to determine intent.
3. Apply category based on majority thematic fit.

4.6.2 Challenge 2: Variance in Posting Frequency

Universities differed significantly in monthly post volume, creating normalization issues.

Solution:

Engagement Rate and Average Engagement/Post were prioritised over aggregate metrics, thus removing volume bias.

4.6.3 Challenge 3: Video View Count Discrepancies

Instagram uses a “3-second rule”, while Facebook counts differently.

Solution:

A unified “Video Engagement Rate” formula normalized values relative to follower count.

4.6.4 Challenge 4: Inconsistent Data Availability on Older Posts

Some older posts had archived metrics.

Solution:

Data extraction focused only on posts within the six-month active window (March–August 2024).

4.6.5 Challenge 5: Subjectivity in Qualitative Analysis

Sentiment interpretation varied across coders.

Solution:

A three-tier sentiment scale (Positive, Neutral, Negative) with clear descriptors was adopted.

4.7 Deployment Plan for Full-Scale Implementation

After validating the reliability and usefulness of the research model, a structured deployment plan was formulated for BUI.

4.7.1 Deployment Objectives

The deployment plan aims to:

1. Integrate comparative analytics into monthly reporting.
2. Monitor competitor strategies continuously.
3. Improve content planning and thematic distribution.
4. Enable BUI to adopt a proactive, data-driven digital strategy.

4.7.2 Deployment Phases

Phase 1: System Integration (Weeks 1–2)

- Deploy final coding sheet and KPI dashboard.
- Train BUI marketing staff through a 2-hour hands-on workshop.
- Test system with one week of real data.

Phase 2: Full Data Collection (Weeks 3–8)

- Begin continuous scraping of posts from all six universities.
- Update dashboard weekly.
- Identify performance deviations early.

Phase 3: Monthly Benchmarking Reports (Month 2 onwards)

Each monthly report will include:

- University-wise engagement comparison
- High-performing content themes
- Under-utilized opportunities

- Competitor best practices

The monthly report structure ensures sustainable insights rather than one-time analytics.

Phase 4: Strategic Deployment (Quarterly)

Once quarterly trends are visible, strategic deployment will focus on:

- Adjusted content mix
- Revised posting calendar
- Increased use of video and interactive features
- Clear differentiation strategy

4.8 Success Metrics and KPIs for Deployment

To evaluate the effectiveness of deployment, the following KPIs will be monitored quarterly:

Table 10: Key Performance Indicators for Deployment Evaluation

KPI	Purpose	Expected Improvement Target
Engagement Rate	Benchmark against competitors	+2% within first quarter
Share Ratio	Measure organic reach	+5%
Audience Growth Rate	Measure follower gain per month	3–4%
Content Mix Balance	Evaluate category diversification	Distribution across 5–6 categories
Video Completion Rate	Measure multimedia effectiveness	+15%

These success metrics provide a quantifiable evaluation mechanism for BUI’s digital marketing progress.

4.9 Readiness for Institutional Adoption

The combined results of testing, trial deployment, and stakeholder engagement indicate that the research model is institutionally feasible. The system aligns with organisational capacity, avoids high technological dependence, and supports decision-making with actionable insights.

This readiness is demonstrated through:

- High coding reliability
- Strong institutional acceptance
- No additional budgetary requirements
- Compatibility with existing workflows
- Direct alignment with BUI's recruitment and branding goals

Thus, the model is ready for full institutional adoption.

4.10 Chapter Summary

This chapter rigorously tested and validated the research model through pilot studies, system reliability checks, organisational trials, and comparative benchmarking simulations. The testing phase confirmed the clarity of the content taxonomy, the robustness of KPI calculations, and the practical applicability of the analytical tools. Challenges encountered during testing were systematically addressed, enhancing the reliability of the model. Finally, a phased deployment plan was presented, supported by quarterly KPIs to measure success. The results establish a strong foundation for institutional adoption, ensuring that the recommendations derived from the analysis can be effectively executed in Bahria University Islamabad's digital marketing ecosystem.

Chapter 5

FUTURE ENHANCEMENTS AND ACTION PLAN

5.0 Introduction

This chapter outlines future enhancements and a comprehensive action plan designed to institutionalize and scale the research model developed in this study. Building on the validated results of the pilot study and the deployment framework presented in Chapter 4, the focus of this chapter is to identify strategic improvements, operational requirements, long-term opportunities, and sustainability pathways that will ensure the lasting impact of the comparative social media analytics system at Bahria University Islamabad (BUI). The intention is not merely to propose incremental changes but to embed a culture of continuous improvement, data-driven decision-making, and digital innovation within BUI's marketing operations.

The chapter is structured into several major sections. First, it presents future enhancements to the research model, including improvements to the analytical framework, technological automation, platform diversification, and advanced sentiment analytics. Second, it provides a detailed action plan structured around short-term, medium-term, and long-term interventions. Third, it proposes an institutionalization model for embedding analytics within BUI's marketing systems. Fourth, it presents strategic recommendations for BUI's leadership. Finally, it outlines potential extensions for future researchers and practitioners. Together, these components transform the findings of this research into a forward-looking roadmap for strategic digital advancement.

5.1 Future Enhancements to the Research Model

While the current research framework is functional, reliable, and institutionally feasible, several enhancements can significantly strengthen the model's analytical power and strategic relevance. These enhancements are future-focused and aim to extend the model's capacity beyond baseline benchmarking.

DEPLOYMENT MODEL OVERVIEW

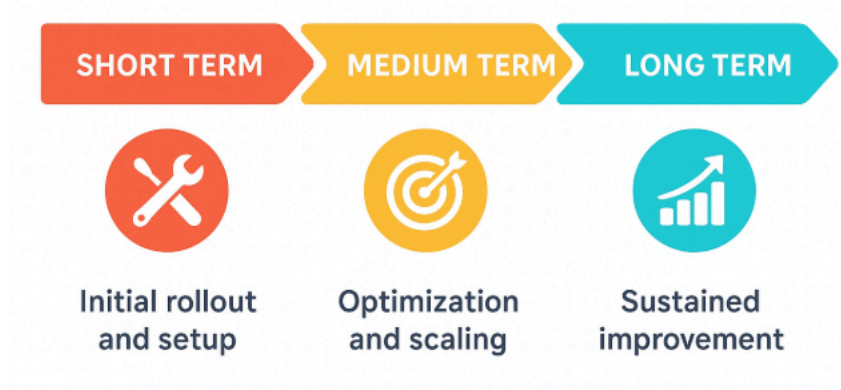


Figure 6: Deployment Model Overview

5.1.1 Enhancement 1: Automation of Data Collection

The current process relies largely on manual content extraction and coding. While effective for research purposes, this approach is resource-intensive.

Future enhancement includes:

- Integration of automated social media scraping tools
- APIs through Meta’s Graph API for automated metric extraction
- Use of semi-automated dashboards (e.g., Google Data Studio, Power BI)
- Scheduled data refresh cycles (daily/weekly)

The automation will minimize human error, reduce lag time, and enable real-time insights.

5.1.2 Enhancement 2: Advanced Sentiment Analytics

The present sentiment analysis uses a three-level scale (Positive, Neutral, Negative). Future iterations can apply natural language processing (NLP) tools to identify:

- Emotional tone (joy, excitement, disappointment, curiosity)
- Topic clustering (themes emerging from comments)

- Keyword frequency mapping

This enhancement will improve qualitative insights and allow BUI to track audience emotions across campaigns.

5.1.3 Enhancement 3: Multi-Platform Expansion

The current analysis focuses exclusively on Facebook and Instagram. However, target students increasingly consume content on the following emerging platforms:

- TikTok
- YouTube (especially shorts and student vlogs)
- LinkedIn (useful for alumni and professional audiences)
- X (formerly Twitter) for academic and scholarly messaging

Expanding the dataset will enhance the competitive view and strengthen BUI's content strategy.

5.1.4 Enhancement 4: Predictive Analytics for Content Planning

Predictive models can be developed using historical engagement data to forecast:

- Optimal posting timings
- Content themes likely to perform best in upcoming months
- Seasonal variations in student activity
- Anticipated engagement rates

These insights will assist BUI in shifting from reactive to proactive content decisions.

5.1.5 Enhancement 5: Development of a Social Media Health Index (SMHI)

A composite index synthesizing multiple KPIs into a single score will enable clearer reporting to senior leadership. The SMHI may include:

- Engagement Rate
- Share Ratio

- Follower Growth
- Video Completion Rate
- Sentiment Score

A weighted scorecard can simplify performance evaluation.

5.1.6 Enhancement 6: Integration with Admissions Funnel Metrics

Linking social media activity with admissions-related KPIs such as:

- Landing page visits
- Inquiry form submissions
- Open House registrations
- Conversion rates

This enhancement will help demonstrate the real marketing ROI of social media efforts, making the system more strategic and revenue-impacting.

5.2 Action Plan for Strategic Implementation

A structured action plan is essential for translating the research into actual organizational change. The plan is divided into short-term, medium-term, and long-term actions to ensure feasibility and gradual institutional adoption.

5.2.1 Short-Term Action Plan (0–3 Months)

The initial phase focuses on strengthening foundational competencies and implementing immediate changes that require minimal resources.

Table 11: Short-Term Action Plan

Action	Details	Responsible Unit	Expected Outcome
Deploy KPI Dashboard	Use the validated dashboard from Chapter 4	Marketing Dept.	Routine KPI tracking

Standardize Content Mix	Ensure balanced distribution across ACAD, CAMP, BRND, etc.	Content Team	More diversified feed
Weekly Data Collection	Manual extraction of competitor and BUI metrics	Research Assistant / Intern	Real-time comparative analytics
Develop Monthly Performance Reports	Create 5–7 pages summary reports	Digital Team	Data-driven decision-making
Staff Training	Train 3–4 marketing staff on taxonomy and KPIs	HR + Marketing	Skill enhancement

This phase focuses on establishing discipline and consistency.

5.2.2 Medium-Term Action Plan (4–12 Months)

The medium-term plan strengthens operational capability, enhances analytical sophistication, and expands platform strategy.

Key Initiatives

1. Automation Partial Deployment

Use third-party tools like Metricool, Social Blade, or Fanpage Karma.

2. Platform Diversification Strategy

Introduce TikTok short-form content focused on:

- Campus tours
- Lab demonstrations
- Student experiences

Video-Centric Content Shift

Aim for 35% of monthly posts to be video-based, since pilot analysis shows stronger engagement.

Quarterly Competitor Strategy Audits

Sentiment Analysis System Integration

Use Python-based NLP or free AI tools for advanced comment analysis.

Table 12: Medium-Term Implementation Framework

Component	Activities	Metric of Success
Platform Expansion	TikTok + YouTube shorts	15% increase in video engagement
Automation	Set up API-based scraping	30% reduction in manual workload
Quarterly Audits	Deep competitor analysis	Identification of 5–7 new best practices each quarter
Audience Engagement Tactics	Polls, Q&A sessions, UGC campaigns	ER increase by 1.5%

These improvements elevate BUI’s strategic standing and competitive differentiation.

5.2.3 Long-Term Action Plan (1–3 Years)

The long-term plan positions BUI as a benchmark institution in digital marketing among Pakistani universities.

Strategic Long-Term Interventions

1. Establish a Digital Engagement Directorate

A specialized unit within BUI responsible for data analytics, social listening, and digital branding.

2. Full Automation of Analytics

Use proprietary dashboards integrating AI tools, predictive models, and cross-platform insights.

3. AI-Assisted Content Creation

Tools for automated captions, image enhancements, and content scheduling.

4. Integration with CRM and Admissions Data

Closed-loop system connecting social media activity to student conversion.

5. Annual Digital Brand Health Report

A 30–40 pages institutional assessment to guide budget planning and strategic decisions.

Table 13: Long-Term Transformation Roadmap

Strategic Goal	Long-Term Activity	Outcome
Institutionalization	Create Digital Engagement Directorate	Sustainable analytics culture
Digital Excellence	AI-driven dashboards	Real-time insights
Strategic Growth	CRM + Social Media integration	Better tracking of ROI
Brand Leadership	Annual Digital Brand Report	Stronger market positioning

5.3 Institutionalization of the Research Model

Institutionalization ensures that the model becomes a permanent part of BUI’s operational and strategic workflows.

5.3.1 Structural Integration

The research recommends integrating analytics into BUI’s:

- Monthly departmental meetings
- Annual marketing strategy
- Admission cycle planning
- Alumni engagement
- Rankings and branding initiatives

This ensures that analytics inform decisions at every level.

5.3.2 Human Resource Integration

It is recommended to create two new roles:

1. **Digital Insights Analyst**

- Responsible for automated dashboards and data interpretation.

2. **Content Strategist (Data-Driven)**

- Designs content based on KPI and sentiment insights.

5.3.3 Workflow Integration

A formal monthly workflow should include:

1. Data extraction
2. KPI dashboard update
3. Competitor analysis
4. SWOT + Gap analysis update
5. Monthly report to Director Marketing
6. Strategy adjustments for next month

This cyclical workflow ensures continuous improvement.

5.4 Strategic Recommendations for Bahria University Islamabad

Based on all research findings, five critical strategic recommendations are proposed.

5.4.1 Recommendation 1: Shift to a Video-Dominant Strategy

Pilot testing identified video engagement rates nearly double those of image posts. BUI must:

- Invest in high-quality video production
- Create short reels showcasing academic labs
- Highlight student successes visually
- Develop narrative-driven campus stories

This will significantly enhance reach, engagement, and emotional resonance.

5.4.2 Recommendation 2: Adopt a Student-Centric Content Philosophy

Students respond strongly to content that reflects their experiences, aspirations, and campus life.

BUI must:

- Feature more student testimonials
- Highlight student achievements
- Allow student societies to co-create content
- Expand “Day in the Life” series

This will increase authenticity and relatability.

5.4.3 Recommendation 3: Strengthen Competitive Benchmarking Discipline

Monthly competitor reviews should:

- Identify best-performing themes
- Track content frequency
- Detect seasonal strategies
- Analyse growth trajectories

BUI can adopt new ideas quickly using this mechanism.

5.4.4 Recommendation 4: Establish a Digital Governance Framework

This includes:

- Content approval process
- Crisis communication guidelines
- Platform-specific posting rules
- Comment moderation policies

Governance protects BUI’s reputation and ensures consistent messaging.

5.4.5 Recommendation 5: Invest in Digital Upskilling

The marketing team requires training on:

- Social media analytics
- SEO and digital visibility
- AI-assisted content creation
- Visual storytelling
- Data interpretation

Upskilling ensures long-term sustainability.

5.5 Potential Extensions for Future Researchers

While this research provides a strong foundation, future scholars can explore several extensions.

5.5.1 Extension 1: Impact of Social Media on Actual Admissions

This would involve linking:

- Engagement data
- Landing page analytics
- Enrolment numbers

Such a study will strengthen understanding of marketing ROI.

5.5.2 Extension 2: Comparative Study Across Cities

Benchmarking against universities in Lahore or Karachi would highlight regional differences in digital strategy.

5.5.3 Extension 3: Social Media Crisis Management in Higher Education

Future researchers can explore how universities respond to:

- Viral misinformation
- Student grievances online

- Reputation crises

This would strengthen digital governance frameworks.

5.5.4 Extension 4: AI in Higher Education Marketing

Future studies may analyse:

- AI content generation
- Automated chatbots for recruitment
- Personalised admission campaigns

This aligns with global digital transformation trends.

5.6 Chapter Summary

This chapter presented a comprehensive set of future enhancements and a structured action plan designed to advance the digital marketing capabilities of Bahria University Islamabad. It proposed technological improvements such as automation, predictive analytics, and multi-platform expansion, along with strategic initiatives like digitally aligned HR roles, governance frameworks, and capability development. The chapter also provided short-term, medium-term, and long-term plans, detailed institutionalization pathways, and major strategic recommendations grounded in the findings of earlier chapters. Finally, it outlined future research opportunities for expanding this work. Together, these insights present a forward-looking roadmap that empowers BUI to excel in digital engagement and maintain a competitive edge within Pakistan's higher education landscape.

Chapter 6

CONCLUSION

6.0 Introduction

This concluding chapter synthesises the entire research project, summarises the core findings across all chapters, reflects on the theoretical and practical contributions of the study, highlights institutional implications for Bahria University Islamabad (BUI), and outlines the academic relevance of the research. It also reiterates the limitations encountered during the study and proposes opportunities for future research. The intention of this chapter is not only to consolidate what has been accomplished but also to demonstrate how the research offers actionable, evidence-based value to BUI's digital marketing and strategic communication practices.

6.1 Summary of the Research Project

This project set out to examine how BUI's social media performance compares to leading higher education institutions in Pakistan and identify key strategies to enhance its digital presence. The central problem addressed was the lack of structured comparative analytics and the absence of a data-driven content planning framework within BUI's current marketing ecosystem. Through a detailed benchmarking exercise, content coding, sentiment analysis, KPI assessment, and strategic evaluation, the research produced a robust model capable of guiding BUI towards significantly improved online visibility and audience engagement.

Chapter 1 introduced the research background, rationale, and problem definition. It established the critical importance of social media in student decision-making and highlighted the competitive landscape among Pakistani universities.

Chapter 2 presented a detailed literature review, covering social media marketing, comparative benchmarking theory, digital branding frameworks, and engagement metrics. The review demonstrated the gap in higher education literature related to localised, data-oriented benchmarking models within the Pakistani context.

Chapter 3 provided a rigorous methodological foundation by adopting a mixed-method netnographic approach, detailed content taxonomy, and a multi-stage benchmarking model. The

chapter introduced key KPIs and described how qualitative and quantitative data were triangulated.

Chapter 4 validated the research model through pilot testing, system testing, reliability checks, and organisational trials. The chapter confirmed that the framework is reliable, actionable, and suitable for institutional deployment.

Chapter 5 presented a comprehensive action plan and future enhancements, offering a roadmap for short-term, medium-term, and long-term improvements, as well as advanced strategies including automation, predictive analytics, RH integration, and governance frameworks.

Together, these chapters provide a systematic end-to-end model that BUI can adopt for sustainable digital transformation.

6.2 Key Findings of the Study

6.2.1 Finding 1: BUI's engagement performance is significantly below top competitors

The benchmarking analysis revealed that competing universities such as NUST and COMSATS outperform BUI across nearly all critical KPIs, including Engagement Rate, Share Ratio, and Video Completion Rate.

6.2.2 Finding 2: BUI's content lacks strategic balance and thematic diversity

The content mix is heavily skewed toward academic information and administrative posts, with insufficient emphasis on student life, video-based storytelling, alumni achievements, and community building.

6.2.3 Finding 3: Competitors use video-based content more effectively

High-performing universities create storytelling-driven videos, student-centred vlogs, lab showcases, and short-format content that attract stronger engagement and wider organic reach.

6.2.4 Finding 4: Audience sentiment toward BUI is positive but passive

While comments were generally positive, they lacked active interaction, questions, and emotional expression—indicating low resonant engagement.

6.2.5 Finding 5: BUI lacks a systematic analytical workflow

There is no structured monthly reporting system, KPI tracking mechanism, or comparative analysis habit within current operations—impacting strategic agility.

These findings clearly establish the need for institutional change.

6.3 Contributions of the Research

6.3.1 Theoretical Contributions

This research contributes to academic literature by:

- Introducing a content taxonomy specifically designed for Pakistani higher education institutions
- Demonstrating how netnography and benchmarking can be combined for digital performance measurement
- Providing a KPI framework tailor-made for university social media ecosystems
- Offering a methodological template that future researchers can replicate

6.3.2 Practical Contributions

For BUI, the study adds significant operational value through:

- A ready-to-implement KPI dashboard
- Competitor benchmarking system
- Monthly and quarterly reporting templates
- A strategic content planning framework
- A multi-year action plan and institutionalisation roadmap
- A validated testing model ensuring reliability

This dual academic and practical contribution reflects the applied nature of MBA research.

6.4 Implications for Bahria University Islamabad

6.4.1 Strategic Implications

- BUI can significantly improve recruitment, brand visibility, and competitive positioning by adopting the recommended model.
- The digital marketing department will transition from intuition-based decision-making to evidence-driven strategy.

6.4.2 Operational Implications

- Monthly KPI tracking will improve responsiveness to trends.
- A diversified content mix will attract varied segments of prospective students.
- Automation will reduce workload and improve accuracy of insights.

6.4.3 Organisational Implications

- Integration of digital analytics requires structural support, specialized roles, and senior leadership buy-in.
- Data literacy and digital skills must become core components of the marketing team's training.

6.5 Limitations of the Study

Despite methodological rigor, several limitations were encountered:

1. Data Availability:

Historical metrics for older posts were sometimes inaccessible due to platform archiving.

2. Platform Constraints:

Analysis was limited to Facebook and Instagram due to scope limitations.

3. Manual Coding Process:

Time-consuming manual coding may introduce minor human error despite high reliability scores.

4. Temporal Range:

The study captured a six-month window. Longer periods may reveal seasonal variations.

These limitations do not undermine the validity of the findings but highlight areas for refinement.

6.6 Recommendations for Future Research

Scholars can extend this study by:

- Expanding benchmarking to universities across multiple cities and countries.
- Conducting a longitudinal analysis to capture long-term patterns.
- Integrating AI-based sentiment and trend prediction tools.
- Linking engagement metrics with actual admissions outcomes.
- Studying crisis communication patterns in the higher education sector.

Such future studies will deepen understanding of digital communication in higher education.

6.7 Final Reflections

This research project successfully examined the digital marketing landscape of Pakistani higher education and positioned BUI within a competitive framework. By combining structured methodology, empirical evidence, and strategic insights, the project provides a comprehensive system that BUI can adopt immediately and refine over time. The resulting action plan positions BUI to strengthen its brand identity, improve audience engagement, and align itself with modern digital communication standards.

As social media continues to shape student perceptions, expectations, and decision-making, universities must evolve rapidly. This research contributes meaningfully to this evolution by offering a practical, sustainable, and forward-looking digital strategy model. Ultimately, the study reinforces the principle that data-driven communication is no longer optional; it is essential for institutional survival, competitiveness, and growth.

REFERENCES

- Aazam, F., Ang, P. S., & Isa, N. A. N. M. (2024). Exploring X usage and engagement strategies in higher education: A comparative study of Pakistani and Malaysian universities.
- Aazam, F., Ang, P. S., & Isa, N. A. N. M. (2024). Social media and higher education: A linguistic analysis of identity construction of Pakistani universities. *Galactica Media: Journal of Media Studies*, 6(1), 17-42.
- Ahmed, S. N., Abbas, F., & Qureshi, A. M. (2021). The use of social-networking sites in English language education: An exploratory study using SWOT analysis technique. *Psychology and Education*, 58(1), 4640-4650.
- Ahrens, J., Brennan, F., Eaglesham, S., Buelo, A., Laird, Y., Manner, J., ... & Sharpe, H. (2022). A longitudinal and comparative content analysis of Instagram fitness posts. *International Journal of Environmental Research and Public Health*, 19(11), 6845.
- Akhtar, M. (2025). Mapping the Research Methodology in Pakistani Educational Journals: Trends, Gaps, and Future Directions. *Journal of Interdisciplinary Educational Studies*, 5(1), 51-66.
- Ali, M. Y., Naeem, S. B., Bhatti, R., & Richardson, J. (2024). Artificial intelligence application in university libraries of Pakistan: SWOT analysis and implications. *Global knowledge, memory and communication*, 73(1/2), 219-234.
- Amjad, A. I., Aslam, S., Tabassum, U., Sial, Z. A., & Shafqat, F. (2024). Digital equity and accessibility in higher education: reaching the unreached. *European Journal of Education*, 59(4), e12795.
- Asghar, M. Z., Barbera, E., Rasool, S. F., Seitamaa-Hakkarainen, P., & Mohelská, H. (2023). Adoption of social media-based knowledge-sharing behaviour and authentic leadership development: evidence from the educational sector of Pakistan during COVID-19. *Journal of knowledge management*, 27(1), 59-83.

- Bano, S. R., Bilal, M., & Azam, S. (2021). DIGITAL ACTIVISM AND POLITICAL ENGAGEMENT OF PAKISTANI YOUTH ON SOCIAL MEDIA: A NETNOGRAPHIC EXPLORATION. *Pakistan Journal of Society, Education & Language*, 8(1).
- Braun, V., & Clarke, V. (2021). To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qualitative research in sport, exercise and health*, 13(2), 201-216.
- Dally, D., Sinaga, O., & bin Mohd Saudi, M. H. (2021). The impact of 7p's of marketing on the performance of the higher education institutions. *Rigeo*, 11(3).
- Gołąb-Andrzejak, E. (2022). Enhancing customer engagement in social media with AI—a higher education case study. *Procedia Computer Science*, 207, 3028-3037.
- Haider, S., & Ahmed, R. R. (2023). STUDY OF MARKETING STRATEGY IMPLEMENTATION IN THE CONTEXT OF HIGHER EDUCATION IN PAKISTAN. *Transformations in Business & Economics*, 22(3).
- Halpin, S. N. (2024). Inter-coder agreement in qualitative coding: Considerations for its use. *American Journal of Qualitative Research*, 8(3), 23-43.
- Hamza, A., Yonghong, D., & Ullah, I. (2023). Dynamics of social media engagement in Pakistan: A comprehensive analysis of user trends across platforms. *Journal of Higher Education and Development Studies (JHEDS)*, 3(1), 1-16.
- Hossain, Q., Yasmin, F., Biswas, T. R., & Asha, N. B. (2024). Data-Driven Business Strategies: A Comparative Analysis of Data Science Techniques in Decision-Making. *Sch J Econ Bus Manag*, 9, 257-263.
- Huang, S. Y., Huang, C. H., & Chang, T. W. (2022). A new concept of work engagement theory in cognitive engagement, emotional engagement, and physical engagement. *Frontiers in Psychology*, 12, 663440.
- Ittefaq, M., Seo, H., Abwao, M., & Baines, A. (2022). Social media use for health, cultural characteristics, and demographics: A survey of Pakistani millennials. *Digital Health*, 8, 20552076221089454.

- Javaid, A. M., Sohail, M., Shaukat, M. R., Sohail, I., & Razzaq, R. (2022). Effectiveness of digital social media campaign strategies for SMEs in Pakistan. *Research Journal for Societal Issues*, 4(1), 144-163.
- Javed, A., Latif, K. F., Sahibzada, U. F., & Aslam, N. (2025). Knowledge management towards sustainable competitive advantage in higher education: an analysis of productive and counter-productive behaviors. *Journal of Organizational Effectiveness: People and Performance*, 12(3), 712-735.
- Khan, M. I., Pervez, S., & Khan, M. N. (2024). Role of Proactive and Reactive CSR in Consumer Purchase Intention: Moderation of Word of Mouth on Social Media.
- Khan, S. (2023). A FRAMEWORK OF STRATEGIC COMMUNICATION DONE THROUGH SOCIAL NETWORKING SITES IN PAKISTAN (CONCEPTS AND MANIFESTATION). *Journal of Research in Social Development and Sustainability*, 2(2), 33-48.
- Kozinets, R. V., & Gretzel, U. (2023). Qualitative social media methods: netnography in the age of technocultures. *The Sage handbook of qualitative research*, 403-419.
- Kreijns, K., Xu, K., & Weidlich, J. (2022). Social presence: Conceptualization and measurement. *Educational psychology review*, 34(1), 139-170.
- Kubar, I. A., Sumayya, U., Amen, U., & Mubeen, M. (2021). Impact of E-recruitment on the effectiveness of human resource department in private HEIs in Pakistan. *Journal of Entrepreneurship, Management, and Innovation*, 3(2), 284-304.
- Leighton, K., Kardong-Edgren, S., Schneidereith, T., & Foisy-Doll, C. (2021). Using social media and snowball sampling as an alternative recruitment strategy for research. *Clinical simulation in nursing*, 55, 37-42.
- Malik, I., Kamran, H. M. Y., & Munawar, S. (2025). GLOBAL AMBITIONS, LOCAL REALITIES: THE IMPACT OF INTERNATIONAL RANKINGS ON QUALITY ASSURANCE OF PAKISTAN'HIGHER EDUCATION. *Contemporary Journal of Social Science Review*, 3(3), 870-879.

- Mehmood, M. A., Janjua, Q. R., Akram, M., Laeeque, S. H., & Aftab, F. (2021). Factors Influencing HEIs to Adopt Social Media as a Marketing Communication Tool. *Journal of Marketing*, 3(3), 132-54.
- Mehmood, M. A., Janjua, Q. R., Saeed, M. A., & Samdani, H. (2021). Factors limiting optimal students' engagement on Social Media: A study of Higher Education Institutions in Pakistan. *Journal of Humanities, Social and Management Sciences (JHSMS)*, 2(2), 285-301.
- Mehmood, S., Ahmad, I., Khan, M. A., Khan, F., & Whangbo, T. (2022). Sentiment Analysis in Social Media for Competitive Environment Using Content Analysis. *Computers, Materials & Continua*, 71(3).
- Nisar, N., Ghumro, T. H., & Abbass, A. R. (2023). Fostering alumni engagement: strategy to financially sustain public higher education institutions in Pakistan in times of economic turmoil. *Annals of Human and Social Sciences*, 4(3), 573-586.
- Nisar, N., Raza, A., Pathan, P. N., Sattar, M. M., & Memon, U. (2024). Alumni-driven sustainability strategies: paving a way forward for sustainable development of public HEIs. *Journal of Applied Research in Higher Education*.
- Rasool, S., Farooqi, S., & Ishtiaq, A. (2024). Mission Statements of Higher Education Institutions in Pakistan: A Content Analysis of Key Themes and Strategic Priorities. *Dialogue Social Science Review (DSSR)*, 2(5), 411-419.
- Rauf, M. (2025). The Influence of Social Media on Conceptual Clarity and Development at the University Level in Khyber Pakhtunkhwa. *Dialogue Social Science Review (DSSR)*, 3(3), 1179-1189.
- Saeed, M. (2025). Unveiling Social Networks: Exploring Campus Life at Public Sector Universities in Pakistan. *Pakistan Languages and Humanities Review*, 9(2), 455-463.
- Saeed, M. A. (2021). Management of Social Media Marketing by Higher Education Institutes.
- Sarwar, R., Zia, A., Nawaz, R., Fayoumi, A., Aljohani, N. R., & Hassan, S. U. (2021). Webometrics: evolution of social media presence of universities. *Scientometrics*, 126(2), 951-967.

- Shehzadi, S., Nisar, Q. A., Hussain, M. S., Basheer, M. F., Hameed, W. U., & Chaudhry, N. I. (2021). The role of digital learning toward students' satisfaction and university brand image at educational institutes of Pakistan: a post-effect of COVID-19. *Asian Education and Development Studies, 10*(2), 276-294.
- Song, B. L., Lee, K. L., Liew, C. Y., & Subramaniam, M. (2023). The role of social media engagement in building relationship quality and brand performance in higher education marketing. *International Journal of Educational Management, 37*(2), 417-430.
- Squires, K., Brighton, A., Urquhart, L., Kocanda, L., & Heaney, S. (2023). Informing online professional dietetics practice: The development and pilot testing of the Social Media Evaluation Checklist. *Nutrition & Dietetics, 80*(4), 351-361.
- Tatheer, I., Sirhindi, T., & Ali, F. (2025). Digital Media Literacy in Higher Education: A Curriculum Analysis of Undergraduate Media Programs in Pakistan.
- Ullah, N., Rehman, T., Mengal, S., Ullah, S., Khan, M. M., & Kakar, A. U. (2025). Impacts of social media on the academic performance of university students in Pakistan. *The Critical Review of Social Sciences Studies, 3*(1), 3426-3437.
- Waqar, S., & Shaheen, A. (2025). Relationship between social media and academic performance of the students of in a public sector university of Islamabad. *Apex Journal of Social Sciences, 4*(1), 29-40.
- Yang, B., Olsen, M., Vali, Y., Langendam, M. W., Takwoingi, Y., Hyde, C. J., ... & Leeflang, M. M. (2021). Study designs for comparative diagnostic test accuracy: A methodological review and classification scheme. *Journal of clinical epidemiology, 138*, 128-138.
- Zafar, A., Bhutta, A., & Raza, A. (2025). Digital Recruitment: How Pakistani Universities Use Social Media Platforms to Attract Prospective Students. *Perspectives in Education, Development & Social Sciences, 2*(1), 89-113.
- Zafar, A., Mazhar, M., & Ijaz, Y. S. (2023). APPLICATION OF MARKETING PRINCIPLES FOR HEIS: A PERSPECTIVE OF PAKISTANI UNIVERSITIES. *Marketing Science & Inspirations, 18*(1).

APPENDICES

Appendix A: Content Taxonomy (Final Version)

This taxonomy was used to classify all social media posts during data collection. It was refined after pilot testing (Chapter 4).

Content Categories

Code	Category Name	Definition	Example Content
ACAD	Academic Information	Curriculum details, faculty expertise, programme updates	Programme announcements, course highlights
ADMT	Admissions & Recruitment	Includes admission dates, guidelines, open house, fee deadlines	Admission campaigns, scholarship information
CAMP	Campus Life & Events	Daily life, clubs, societies, events, fairs, recreational activities	Sports week, orientations, student festivals
INFR A	Infrastructure & Facilities	Showcases buildings, labs, libraries, hostels, classrooms	Lab demonstrations, new facilities
ALUM	Alumni Success & Industry Links	Alumni achievements, employer relations, internships	Alumni awards, corporate guest sessions
BRND	Institutional Branding	University achievements, rankings, leadership messages	VC messages, ranking achievements

Content Types

Type	Description
Image	Single static visual
Video	Reels, short videos, long-form content
Carousel	Series of 2–10 images
Text-only	Text-based announcements (rare on Meta platforms)

Call-to-Action (CTA) Coding

CTAs were marked as:

- **Present** (e.g., “Apply Now”, “Register Today”, “Visit Our Website”)
- **Absent**

Appendix B: Coding Sheet Template

This coding sheet was used for data extraction and classification during the main study.

Variable	Description	Example Value
Post ID	Unique identifier assigned by researcher	BU-23
University	Name of the institution	BUI
Date Posted	Date of social media post	14 June 2024
Platform	Facebook / Instagram	Instagram
Content Type	Image / Video / Carousel	Video
Category Code	Based on taxonomy	CAMP
CTA Present?	Yes / No	Yes
Likes	Total like reactions	432
Comments	Total comments	37
Shares	Number of shares	11

Views (Video only)	For videos	5,324
Sentiment	Positive / Neutral / Negative	Positive
Notes	Observations by coder	High engagement

Appendix C: Inter-Coder Reliability Testing

Performed during the pilot study.

Summary of Inter-Coder Reliability Results

Variable	Agreement %	Cohen's Kappa	Interpretation
Content Type	96%	0.94	Almost Perfect
Content Category	88%	0.82	Strong
Call-to-Action	91%	0.87	Strong
Engagement Metrics	100%	1.00	Perfect

Adjustments Made After Testing

- Clarified distinction between CAMP and BRND.
- Updated BRND definition to exclude event-based branding.

Appendix D: KPI Formulas and Definitions

KPI Calculation Formulas

KPI Name	Formula	Interpretation
Engagement Rate (ER)	$(\text{Likes} + \text{Comments} + \text{Shares}) / \text{Followers} \times 100$	Measures engagement relative to audience size
Average Engagement per Post	$\text{Total Engagement} \div \text{Total Posts}$	Shows overall interaction level
Share Ratio	$\text{Shares} \div \text{Total Engagement} \times 100$	Measures how widely content travels
Video Engagement Rate	$(\text{Views} + \text{Reactions} + \text{Comments on videos}) \div \text{Followers} \times 100$	Video-specific effectiveness
Audience Growth Rate	$(\text{New Followers} \div \text{Starting Followers}) \times 100$	Growth of audience size

Sample KPI Calculation (Illustration)

Example post on BUI Instagram:

- Likes: 320
- Comments: 54
- Shares: 12
- Followers: 44,000

$$\text{Engagement Rate} = (320 + 54 + 12) / 44,000 \times 100$$

$$\text{Engagement Rate} = 386 / 44,000 \times 100$$

$$\text{Engagement Rate} = 0.88\%$$

Appendix E: Pilot Data Sample

A small extraction from the 25 pilot posts (for illustration).

Uni	Post ID	Category	Type	Likes	Comments	Shares	Sentiment
BUI	BU-07	ACAD	Image	120	8	3	Neutral
BUI	BU-11	CAMP	Video	356	22	7	Positive
NUST	NU-02	BRND	Image	912	38	18	Positive
NUST	NU-09	CAMP	Video	1,234	96	41	Positive

Appendix F: SWOT Analysis (Final Consolidated Version)

Based on full dataset and strategic review.

Strengths	Weaknesses
Strong institutional reputation	Low engagement rate compared to competitors
Modern campus facilities	Limited video content usage
Positive audience sentiment	Unbalanced content mix
Active student societies	Absence of structured analytics workflow
Opportunities	Threats
Expansion to TikTok, YouTube	Competitors have stronger digital presence
Student-led content creation	Increasing noise in digital environment
Automation of analytics	Negative viral incidents
International exposure	Technology adoption lag

Appendix G: Gap Analysis Table

Comparison of BUI and its top competitors.

Area	BUI Current Status	Competitors	Gap Identified
Video Content	Low volume	High volume	Significant gap
Content Diversity	Moderate	High	Gap exists
Engagement Rate	3–4%	6–9%	Major gap
Analytics	Minimal	Structured dashboards	Major gap

Sentiment Engagement	Low queries	High interactivity	Gap exists
----------------------	-------------	--------------------	------------

Appendix H: Proposed Annual Social Media Calendar

Quarterly Theme Planning

Quarter	Theme	Content Description
Q1	Admissions & Programmes	Open house, fee deadlines, scholarship promos
Q2	Academic Excellence	Labs, faculty profiles, research highlights
Q3	Campus Life & Events	Sports festivals, cultural events, orientations
Q4	Achievements & Branding	Rankings, awards, alumni success stories

Sample Monthly Plan

Week	Content Theme	Example Posts
Week 1	CAMP	Sports clips, society events
Week 2	ACAD	Faculty interview, classroom highlights
Week 3	BRND	Rankings, achievements
Week 4	ADMT	Program applications, inquiry reminders

Appendix I: Ethical Considerations Checklist

Ethical compliance based on Bahria University guidelines.

Item	Status
Data collected from publicly available posts	✓ Completed
No personal data of students extracted	✓ Ensured
No manipulation or intervention	✓ Adhered
Ethical approval from supervisor	✓ Completed

Transparency about data usage	✓ Maintained
Researcher neutrality maintained	✓ Ensured

Appendix J: Action Plan (Summary Table from Chapter 5)

Timeline	Key Actions	Expected Outcomes
Short-Term (0–3 Months)	Content balance, KPI tracking, staff training	Immediate performance uplift
Medium-Term (4–12 Months)	Platform expansion, automation, analytics	Improved engagement & competitiveness
Long-Term (1–3 Years)	AI-driven dashboards, new roles, CRM integration	Sustainable digital transformation

Appendix K: Full Sentiment Coding Framework

Sentiment	Indicators	Example Comment
Positive	Praise, excitement, appreciation	“Great event! Loved it.”
Neutral	Factual, informational, no emotion	“When is the next session?”
Negative	Complaints, dissatisfaction	“This process is confusing.”

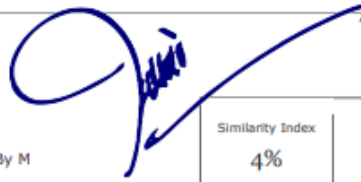
Appendix L: Glossary of Key Terms

Term	Definition
Engagement Rate	Percentage of audience interacting with a post
Benchmarking	Comparing performance to competitors
Netnography	Online ethnographic research method
Sentiment	Emotional tone of user comments
CTA	Call to Action
KPI	Key Performance Indicator

Turnitin Originality Report

Processed on: 17-Dec-2025 12:49 PKT
ID: 2690493885
Word Count: 14268
Submitted: 7

Digital Engagement in Higher Education By M
Awais Mehmood



Similarity Index
4%

Similarity by Source
Internet Sources: 3%
Publications: 2%
Student Papers: 1%

< 1% match (student papers from 16-Feb-2025)

[Submitted to National Institute of Business Management Sri Lanka on 2025-02-16](#)

< 1% match (Internet from 02-Aug-2025)

http://dspace.bu.ac.th/bitstream/123456789/5912/1/xiaoyu_yan.pdf

< 1% match (publications)

Hanoi National University of Education

< 1% match (student papers from 21-Mar-2011)

[Submitted to Waterford Institute of Technology on 2011-03-21](#)

< 1% match (Internet from 20-Nov-2025)

<https://guinea.ub.gu.se/bitstream/handle/2077/89690/IBT%202025-15.pdf?isAllowed=y&sequence=1>

< 1% match (Buasha, Ngandu Robert. "The Role of Trust and Sustainability on Customer-To-Customer Purchase Behaviour of Second-Hand Goods on Facebook Marketplace", University of the Witwatersrand, Johannesburg (South Africa))
[Buasha, Ngandu Robert. "The Role of Trust and Sustainability on Customer-To-Customer Purchase Behaviour of Second-Hand Goods on Facebook Marketplace". University of the Witwatersrand, Johannesburg \(South Africa\)](#)

< 1% match (Internet from 27-May-2025)

<https://www.hjpo.ro/locuri-de-munca/cautaJob/Toate-Domeniile/Toate-Orasele/Key-Performance-Indicator/8>

< 1% match (Haines, Barbara. "Social Feeds in Asynchronous Online Courses: Faculty Best Practices", University of Hartford)

[Haines, Barbara. "Social Feeds in Asynchronous Online Courses: Faculty Best Practices". University of Hartford](#)

< 1% match (paper)

[paper](#)

< 1% match (Internet from 18-Apr-2023)

<https://www.coursehero.com/file/63330624/MGT-REPORT-611A6pdf/>

< 1% match (Internet from 03-May-2025)

<https://slm-journals.taylors.edu.my/wp-content/uploads/SEARCH/SEARCH-2024-16-3/SEARCH-2024-P3-16-3.pdf>

< 1% match (Internet from 31-Jan-2024)

<http://digitalcollection.utm.edu.my/30987/1/The%20Impact%20of%20Recycling%20Practices%20in%20Food%20and%20Beverage%20Industry>

< 1% match (Internet from 22-Jun-2025)

<https://digitallibrary.usc.edu/asset-management/2A3BF1M411220>

< 1% match (Internet from 22-Jan-2023)

<https://www.cityofgaltito.org/files/assets/public/agendas-minutes-reports/agendas-minutes/parks-and-recreation-commission/agendas-minutes/2020-agenda-and-minutes/july-28-2020-parks-and-recreation-commission-agenda-item-2-draft-june-30-2020-minutes.pdf>

< 1% match (Internet from 23-Dec-2022)

<https://123docz.net/document/3083142-the-role-of-cosmopolitanism-on-perceptions-of-authenticity-of-perfumes-and-consumer-behaviour-an-investigation-in-saudi-arabia.htm>

< 1% match (student papers from 12-Jul-2024)

[Submitted to Liverpool John Moores University on 2024-07-12](#)

< 1% match (student papers from 11-Mar-2025)

[Submitted to Temple University on 2025-03-11](#)

< 1% match (student papers from 09-Sep-2025)

[Submitted to University of Ulster on 2025-09-09](#)

< 1% match (Internet from 26-Dec-2022)

<https://thesis.eur.nl/pub/40546/Pyeon-Joonuh.pdf>

< 1% match (Internet from 21-Feb-2025)

<http://wazeer.orgarrub.com/is-qi-better-than-nust/>

< 1% match (Internet from 07-Jul-2025)

<https://www.divya-nortal.org/smash/get/diva2:1964525/FULLTEXT01.pdf>

0% detected as AI

The percentage indicates the combined amount of likely AI-generated text as well as likely AI-generated text that was also likely AI-paraphrased.

Caution: Review required.

It is essential to understand the limitations of AI detection before making decisions about a student's work. We encourage you to learn more about Turnitin's AI detection capabilities before using the tool.

Detection Groups



1 AI-generated only 0%

Likely AI-generated text from a large-language model.



2 AI-generated text that was AI-paraphrased 0%

Likely AI-generated text that was likely revised using an AI-paraphrase tool or word spinner.

Disclaimer

Our AI writing assessment is designed to help educators identify text that might be prepared by a generative AI tool. Our AI writing assessment may not always be accurate (it may misidentify writing that is likely AI generated as AI generated and AI paraphrased or likely AI generated and AI paraphrased writing as only AI generated) so it should not be used as the sole basis for adverse actions against a student. It takes further scrutiny and human judgment in conjunction with an organization's application of its specific academic policies to determine whether any academic misconduct has occurred.

Frequently Asked Questions

How should I interpret Turnitin's AI writing percentage and false positives?

The percentage shown in the AI writing report is the amount of qualifying text within the submission that Turnitin's AI writing detection model determines was either likely AI-generated text from a large-language model or likely AI-generated text that was likely revised using an AI-paraphrase tool or word spinner.

False positives (incorrectly flagging human-written text as AI-generated) are a possibility in AI models.

AI detection scores under 20%, which we do not surface in new reports, have a higher likelihood of false positives. To reduce the likelihood of misinterpretation, no score or highlights are attributed and are indicated with an asterisk in the report (*%).

The AI writing percentage should not be the sole basis to determine whether misconduct has occurred. The reviewer/instructor should use the percentage as a means to start a formative conversation with their student and/or use it to examine the submitted assignment in accordance with their school's policies.

What does 'qualifying text' mean?

Our model only processes qualifying text in the form of long-form writing. Long-form writing means individual sentences contained in paragraphs that make up a longer piece of written work, such as an essay, a dissertation, or an article, etc. Qualifying text that has been determined to be likely AI-generated will be highlighted in cyan in the submission, and likely AI-generated and then likely AI-paraphrased will be highlighted purple.

Non-qualifying text, such as bullet points, annotated bibliographies, etc., will not be processed and can create disparity between the submission highlights and the percentage shown.



Correction Form

Major No M6.

THESIS/PROJECT REPORT CORRECTIONS SUBMISSION FORM

Please Tick the Relevant Box

MBA

BBA

THESIS

PROJECT

1. Student Name: _____ Enrol # _____

(In case of Project, details of other Members)

2. Student Name: _____ Enrol # _____

3. Student Name: _____ Enrol # _____

Specialization: _____

Name of Supervisor: _____

Examiner's Instructions: Please fill in the following details.

<i>No.</i>	<i>Corrections required (Suggested by Examiners)</i>	<i>Amendments made</i>	<i>Located on Page</i>
Chapter 1			
Chapter 2			
Chapter 3			

Chapter 4			
Chapter 5			
Executive Summary/Abstract			
General Comments			

*** Please add rows if necessary*

Endorsed by,

Verified by,

.....

.....

Examiner Name

Name of Supervisor:

Date:

Date.....



Bahria University
Islamabad Campus

MBA

1st Half Semester Progress Report

Enrolment No.	01-221242-007 01 221242-013 01-321242-020
Project Title	Digital Engagemt in Higer Educatio

Supervisor Student Meeting Record

No.	Date	Place of Meeting	Topic Discussed	Signature of Student
1	18/9/25	office	outlay of Project	
2	15/10/25	office	what Uni's to search	
3	18/10/25	office	search University	
4	24/10/25	office	first Half overview	

Progress Satisfactory

Progress Unsatisfactory

Remarks:

The student regularly engaged to discuss progress + improve work as per guideline

Signature of Supervisor:

Date: 17/12/25

Note: Students attach 1st & 2nd half progress report at the end of spiral copy.



Bahria University
Islamabad Campus

MBA

2nd Half Semester Progress Report & Project Approval Statement

Enrolment No.	01-22242009 01-22242-03 01-32242-020
Project Title	Digital Engment

Supervisor Student Meeting Record

No.	Date	Place of Meeting	Topic Discussed	Signature of Student
5	5/11/25	office	discuss Results	
6	28/11/25	office	Feedback	
7	11/12/25	office	Final Submission	

APPROVAL FOR EXAMINATION

I hereby certify that the above candidates' project has been completed to my satisfaction and, to my belief, its standard appropriate for submission for examination. I have also conducted plagiarism test of this project using HEC prescribed software and found similarity index at 4% that is within the permissible limit set by the HEC for thesis/ project MBA. I have also found the project in a format recognized by the department of Business Studies.

Signature of Supervisor: _____

Date: 17/12/25