

Project Budget

The project budget below outlines the estimated costs required for the development, analysis, and dissemination of the machine learning based telecommunication customer churn prediction framework. All estimates are presented in Kenya Shillings (KSh) and are based on current institutional and market rates.

Estimated Project Budget (KSh)

Category	Basis of Estimate	Estimated Cost (KSh)
A. Computational Resources		
Data Storage and Access	250 GB cloud storage for 4 months	5,000
Software Licenses	Annual license for data visualization and analysis tools (e.g., Tableau, Power BI)	10,000
Subtotal A		15,000
B. Administration and Infrastructure		
Ethical and Institutional Review	Standard university ethics and administrative review charges	10,000
Internet and Communication	5 months of high-speed internet @ KSh 4,000/month	20,000
Overleaf/LaTeX Subscription	5-month Overleaf Premium plan @ \$9/month (converted)	6,000
Subtotal B		36,000
C. Data and Dissemination		
Data Access	Use of public dataset (Bulgarian telecom operator)	0
Publication Fees	Open-access journal submission fees	40,000
Subtotal C		40,000
D. Equipment and Materials		
External SSD Backup Drive	1 TB external solid-state drive for data storage	10,000

Category	Basis of Estimate	Estimated Cost (KSh)
Stationery and Printing	Report printing, thesis binding, and presentation materials	8,000
Subtotal D		109,000
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Subtotal (A + B + C + D)		109,000
Miscellaneous / Contingency (10)	To cater for unforeseen costs or exchange rate changes	30,000
Total Estimated Budget		139,000
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