

# **BUDGETING & FORECASTING FINANCIAL MODELLING FOR MODERN DAY MANAGEMENT ACCOUNTING**

**A PRESENTATION BY INVHESTIA AFRICA LIMITED**

**AT THE 9<sup>TH</sup> MANAGEMENT ACCOUNTING CONFERENCE**

**27<sup>th</sup> – 29<sup>th</sup> July 2016**



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# About the Presenter

**Steve Ogada, CFA**

**Associate Principal  
Invhestia Africa Ltd**



- An investment banker by profession with over 10 years experience in the East African capital markets.
- Has worked with a large regional Investment Bank performing various investment banking roles including sales trading, portfolio management for High Net Worth & Institutional clients, research, advisory and capital raise activities in both equities and debt instruments for corporate clients.
- Has worked on over 75 financial models and prepared financial feasibility reports cutting across various sectors from Real Estate, Energy to Manufacturing concerns.
- Holds a Bachelor of Arts Degree (Honors) in Economics from Kenyatta University, has the FAST (Flexible Appropriate Structured Transparent) Level 1 Certificate for financial modelling & is a Chartered Financial Analyst (CFA).



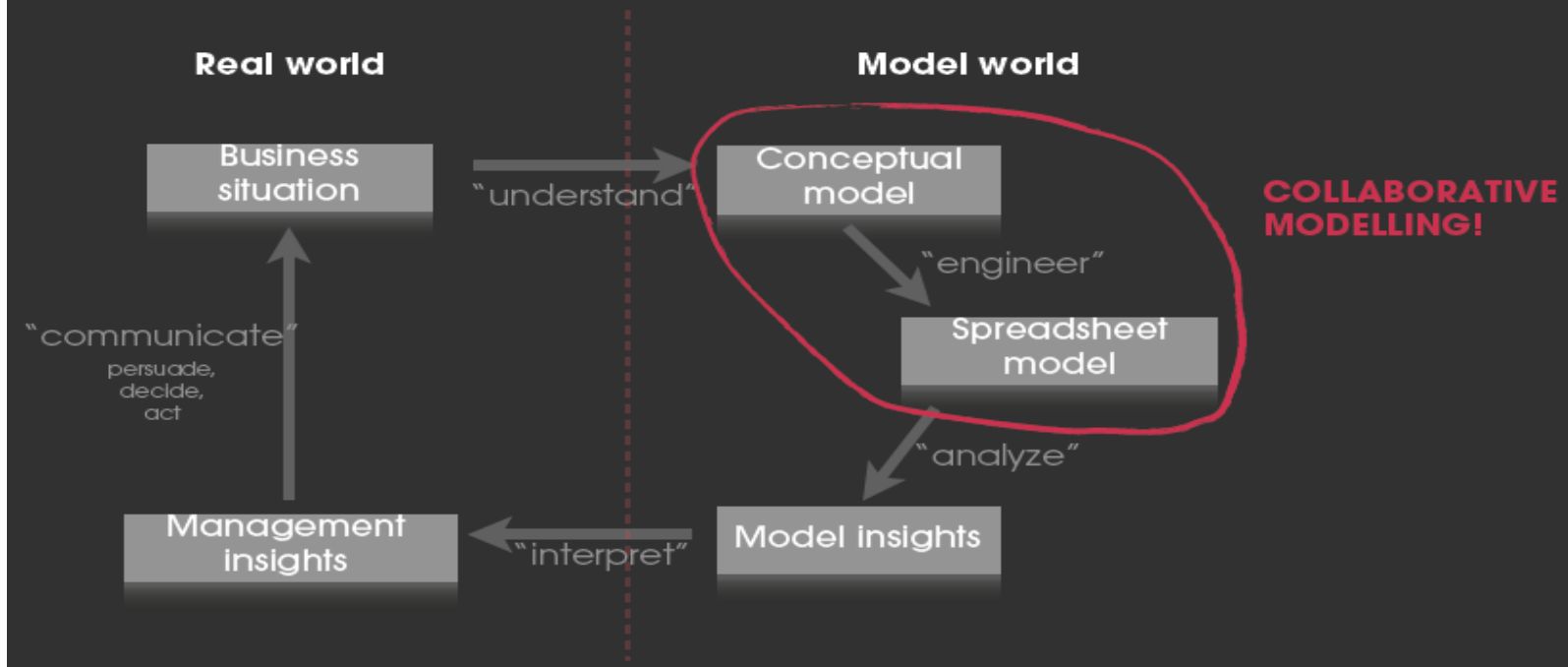
# Introduction – Financial Modelling

- “Mathematicians finally developed a financial model to accurately compare apples and oranges. Any two kinds of fruit can be compared, although guavas still cause minor rounding errors.”  
— Graham Parke
- Too often, finance courses stop short of making a connection between textbook finance and the problems of real-world business;
- Financial Modelling bridges the gap between theory and practice by providing a nuts-and-bolts guide to solving common finance problems with spreadsheets.

# Introduction – Financial Modelling

## BUSINESS ANALYSIS LIFECYCLE

(see Grossman et al 2008 p.132)



# Introduction - Today's Management Accountant

- Management accountants look ahead - they focus on **forecasting, analysis** and decision-making. They use various tools to advise on how the business can move forward;
- Key amongst the tools used are budgets and forecasts to assist in **strategic decision-making**. Decisions may include developing a new product line, acquiring another business, expanding into new territories and raising debt or equity;
- The expectations that organizations have of a Management Accountant are that he/she should be able to generate **timely, accurate & flexible reports** & provide a rigorous analysis of the same.
- The Modern Day Management Accountant is one who possesses the cutting edge financial modelling skill to be able to carry out analysis, create budgets and forecasts which are **FAST**.

# Introduction – Conference Theme

In reference to the Conference theme, “The Changing Role of the Modern Day Management Accountant”, this presentation will address the following thematic areas:

1. Management Accountant as the Analyst;
2. Management Accountant as the Communicator;
3. Management Accountant as the Strategist.

# Management Accountant as the Analyst

## Case Study I – Financial Analysis





# Case Study I – Financial Analysis

- This case is about a business in the education services sector;
- The shareholders needed a forecast of their performance over a 5 year period. Additionally, a valuation was required to be used to attract potential investors;
- We built a financial model which made it easier to analyze the financial performance of the business;
- On a year on year basis, we were able to analyze both income and expenditure per tutor, per student and per employee, amongst other metrics.

# Case Study I – Financial Analysis

## Operating Metrics

	2017	2018	2019	2020	2021	2022
	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Student to tutor (both full time and part time) ratio	10	10	10	10	10	10
Student to Full Time Equivalent Tutors Required ratio	18	18	18	18	18	18
Income per FTE tutor	62,242	86,598	100,813	111,165	117,707	124,666
Tuition cost per FTE tutor	17,806	21,191	23,233	24,741	26,635	28,724
Forecast Income per long term Student	3,458	4,811	5,601	6,176	6,539	6,926
Advertising and Promotion Costs per student	(921)	(666)	(484)	(382)	(317)	(275)
Administrative Costs per student	(1,445)	(1,142)	(995)	(814)	(730)	(693)
Total expense per student	(3,767)	(3,007)	(2,559)	(2,209)	(2,018)	(1,923)

## Key Growth Rates

	2017	2018	2019	2020	2021	2022
	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Long term student growth rate	163.89%	81.45%	44.49%	33.07%	26.58%	21.07%
Income growth	467.58%	152.45%	68.21%	46.73%	34.03%	28.23%
Total expenses growth	200.75%	44.83%	22.95%	14.87%	15.67%	15.38%
PAT growth	94.13%	-80.77%	-799.54%	88.50%	51.17%	36.88%

## Key Ratios

	2017	2018	2019	2020	2021	2022
	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Gross Profit Margin	71.39%	75.53%	76.95%	77.74%	77.37%	76.96%
EBITDA Margin	-37.55%	13.03%	31.27%	41.98%	46.51%	49.19%
PAT Margin	-68.80%	-5.24%	21.80%	28.00%	31.58%	33.71%



# Management Accountant as the Communicator

## Case Study II – Data Presentation



# Case Study II – Data Presentation

- This case involves a business which offers managed offices in East & West Africa;
- The assignment entailed building an operational financial model for the business, which was undergoing both expansion into new geographies as well as capital raising;
- The business had various profit centers, financials in multiple currencies but still needed to be presented on a single platform in both a consolidated form and a country by country basis;
- Upon building the financial model we used a dashboard to present the data. A **dashboard** is an effective tool for communicating complex financial data in a way that is easier on the eye of the audience.



# Case Study II – Data Presentation; The Dashboard

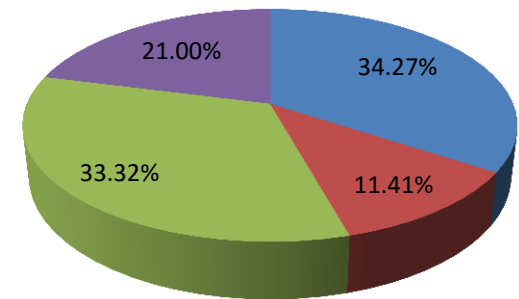
## KEY FINANCIALS - CONSOLIDATED

	31 Dec 15	31 Dec 16	31 Dec 17	31 Dec 18	31 Dec 19	31 Dec 20
	USD	USD	USD	USD	USD	USD
Total Revenue - Kenya	1,931,869	1,975,900	2,066,892	2,234,161	2,406,866	2,536,362
Total Revenue - Nigeria	366,695	875,899	1,113,921	1,130,240	1,131,154	1,131,154
Total Revenue - Ghana	-	603,110	2,384,289	2,767,135	3,150,068	3,557,221
Total Revenue	2,298,564	3,454,908	5,565,102	6,131,537	6,688,089	7,224,737
EBITDA	480,046	837,638	2,927,509	3,401,925	3,839,515	4,276,765

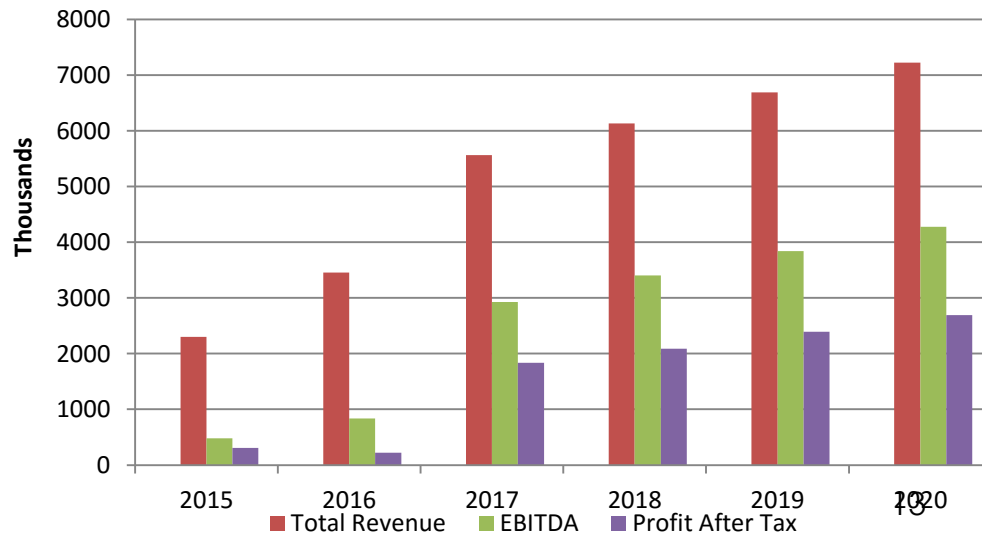
## KEY RATIOS - CONSOLIDATED

	31 Dec 15	31 Dec 16	31 Dec 17	31 Dec 18	31 Dec 19	31 Dec 20
Cost to Income ratio	79.12%	75.76%	47.40%	44.52%	42.59%	40.80%
EBITDA Margin	20.88%	24.24%	52.60%	55.48%	57.41%	59.20%
Net Profit Margin	13.43%	6.42%	33.00%	34.01%	35.75%	37.28%

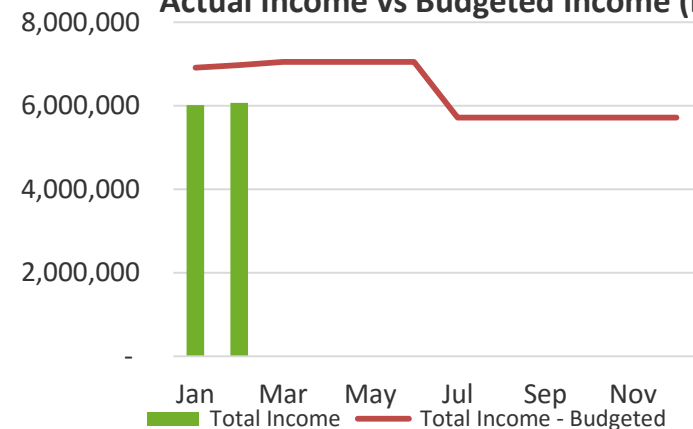
## Serviced Offices Income Kenya Centers



## Consolidated Income Statment



## Actual Income vs Budgeted Income (KES)



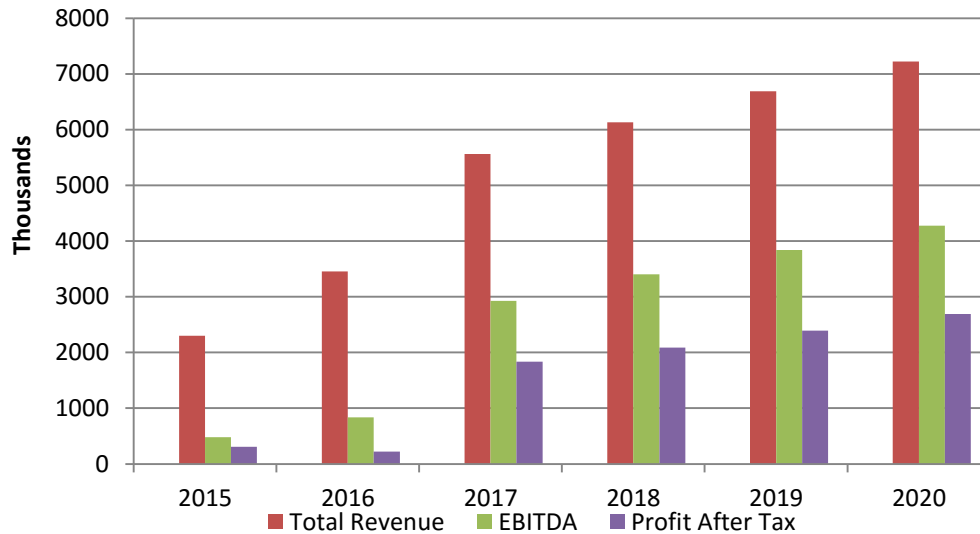
# The Dashboard 1/2

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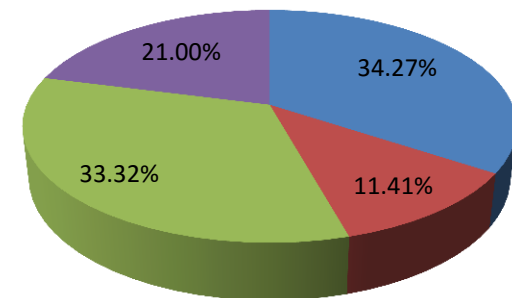
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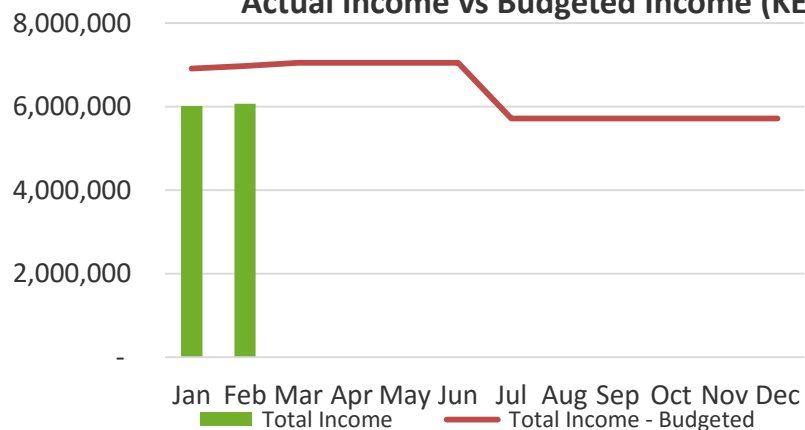
**Consolidated Income Statment**



**Serviced Offices Income Kenya Centers**



**Actual Income vs Budgeted Income (KES)**



# Management Accountant as the Strategist

## Case Study III – Strategy





# Case Study III – Strategy

Item	Return Measure	Parking Silo	Hotel	Warehouse	Office	Retail	Combined Ex Parking	Combined
Project IRR	11.12%	4.98%	18.71%	10.78%	10.56%	20.77%	13.30%	11.12%
Equity IRR	7.16%	-0.49%	20.00%	6.93%	4.79%	22.71%	12.04%	7.16%
Equity Payback period (Years)	22	(116)	11	22	25	12	17	22
Debt Payback period (Years)	20	(116)	9	19	(116)	10	15	20

- This a project finance case in which the sponsor was considering setting up a mixed use development at a station. The development would include a parking silo, warehouse, hotel, office and retail components ;
- We built a financial model to assess the viability of the project both as standalone components as well as a consolidated project;
- The resulting analysis showed that the parking silo generated the worst returns. It informed us that this component is more an amenity than a profit center. The retail component generated the best returns followed by hotel.

# Introduction to the FAST Standard Methodology



# The FAST Standard

- The FAST Standard was created through a collaborative effort of experienced financial modelling professionals.
- Changes to the standard are considered and made after consultations with a moderation board that is made up of several industry experts.

<b>Flexible</b>	A flexible model meets its objectives and can be maintained, re-purposed and updated as needed.
<b>Appropriate</b>	An appropriate model reflects key business decisions without unnecessary detail.
<b>Structured</b>	A structured model has been built consistently and ensures that form follows function.
<b>Transparent</b>	A transparent model is as simple as it can be and does not have unnecessary complexity to obfuscate its functionality and can be used by anyone with some modelling experience, not just its creator.

# FAST Standard Users

Financial+  
Mechanics

AEBEL

 **InVestia**  
FAST modelling, FAST decisions

 **Grant Thornton**  
An instinct for growth™

  
**pwc**

— LATTICE —  
CORPORATE FINANCE STRATEGY TRAINING

 **MAZARS**

**F1F9**

 **carillion**

 **CPAK**  
Credibility . Professionalism . Accountability

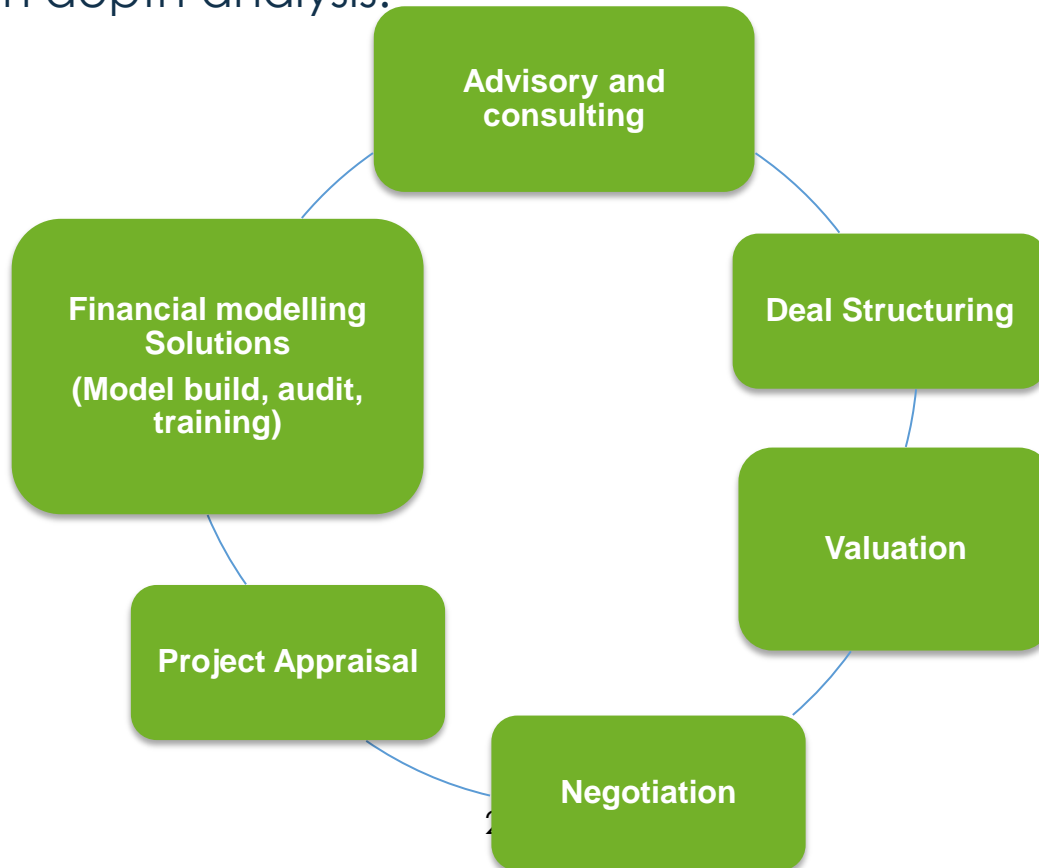
 **InVestia**  
FAST modelling, FAST decisions

# Who are we?



# About Invhestia

InVhestia Africa Limited ([www.invhestia.com](http://www.invhestia.com)) is a boutique project & corporate finance advisory firm. We help firms in their decision-making be they **strategic, operational or financial** by quantifying such decisions and offering in depth analysis.



# EXPERIENCE

**28**

YEARS OF TEAM  
WORK EXPERIENCE

**12**

COUNTRIES OF WORK  
EXPERIENCE BY TEAM  
MEMBERS

**11**

ACADEMIC  
DEGREES &  
PROFESSIONAL  
CERTIFICATIONS

We run an organization that interacts very closely with its clients and so it's very important to us that we find the right people for the organization.

We get a lot of people who are truly qualified, on paper. At a minimum, a majority of applicants have the right experience. That's why everything in the application process matters; we form an opinion of the job applicant during every single interaction.

We then only hire the best fit for close work with our clients.

# Value Proposition

## Advisory

- We have years of practical experience working with entrepreneurs, corporates and project promoters across the East African economy, enhancing our knowledge of sectors;
- Our ability to originate & structure deals and problem solve is exhibited by our diverse portfolio of clients.

## Financial Modelling Assignments (Model Build & Audit)

- We have a team of financial modellers & analysts who are certified by the FAST Standard organization;
- The team has experience in financial modelling & model audits for businesses in various industries including FMCG, power, real estate, financial services & education.

## Financial Modelling Training

- The financial modelling courses offered by Invhestia are FAST Accredited;
- The courses are based on case studies and simulate the real business environment faced by participants.

## Certification

- We offer the FAST Certification for financial modellers. This certificate, being internationally recognized, will set you apart from other modellers.





# Financial Modelling Training

## Courses

Introduction to Financial Modelling and Data Analysis

Budgeting and Forecasting Financial Modelling

Corporate Finance and Valuation Financial Modelling\*

Project Finance Financial Modelling\*\*

Online Financial Modelling


FAST Level 1 Certification

\* - This course has three versions: Manufacturing, Insurance, and Banking concerns

\*\* - This course has two versions: Real Estate and Infrastructure concerns



# InVhestia- A FAST Certified Trainer



The FAST Standard Organisation

Flexible, Appropriate, Structured & Transparent

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The FAST Standard is an open-to-all standard designed to promote flexibility, appropriateness, structure and transparency in spreadsheet-based models. We encourage all those that make use of it to promote its benefits and increase awareness of its existence.



Only those organisations listed on this web page have gone through a formal accreditation process with the FAST Standard Organisation ("FSO"). These organisations have worked with the FSO and have demonstrated a significant commitment to the FAST Standard in the development of their people, products and services. They have the right to bear the kitemark: FAST accredited provider.

Organisations listed on this web page are FAST accredited providers. They offer courses that have been subject to a formal accreditation process with the FSO that allows them to bear the kitemark: FAST accredited course.

[Clarify Consultancy Services](#)

[F1F9](#)

[Financial Arena](#)

[InVhestia Africa Limited](#)



# Selection of our clients





A black and white photograph of a man in a dark suit and patterned tie, sitting at a poker table. He is looking down at his cards and chips. Several stacks of poker chips are visible on the table. The background is dark and out of focus.

## Industry Experts

InVestia Africa Limited  
Ground Floor, Block B,  
Methodist Center, Lavington  
P.O. Box 24350 - 00100  
Nairobi

**Call us on +254 (0) 20 44 00 692**

[info@investia.com](mailto:info@investia.com)  
[www.investia.com](http://www.investia.com)

The logo features a stylized green leaf icon to the left of the company name.

**InVestia**  
FAST modelling, FAST decisions