

The  
**ASSK**  
**ACTUARY**

2018/2019

Issue #3

**Interview with**

Page 15-17

**Message From the President**

Page 3

**My story**

Page 24-26

# RIDING ON THE WINGS OF CHANGE



Institute  
and Faculty  
of Actuaries

## Featuring

3



*Opinion*

10 The New Face of Actuarial  
Profession.

14 BLOCKCHAIN

16 THE PLIGHT OF THE  
GIRL CHILD

26 THE STUDENT  
ACTUARY

27 MNOs! Insurance  
Catalysers

29 Career and passion

**INTERview**  
12-13

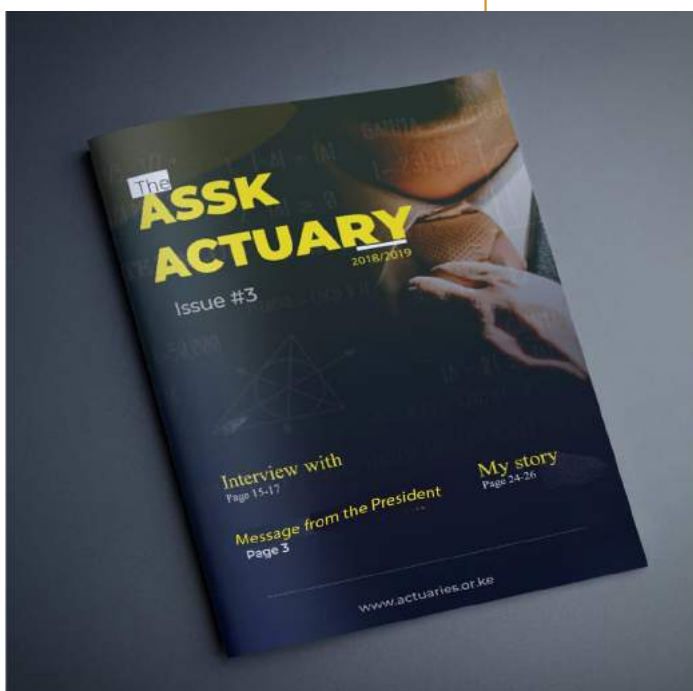
22 MY Story  
Carol Tunu

31 Pictorial

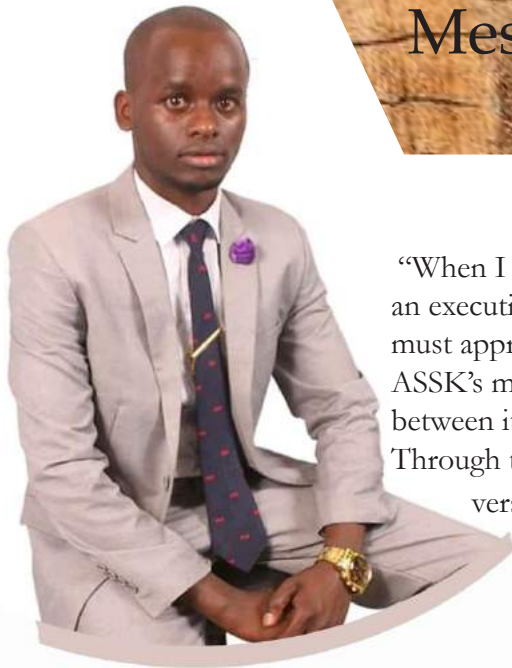
8-9 Research

FA Joab Onyango

5-6 News and  
Activities



4 Editorial  
ASSK PATRONS



## Message From The ASSK PRESIDENT

*Abraham Kimei*

“When I crossed to the other side from being a student member to being an executive, I realized we have probably missed a lot of things” However, I must appreciate the tremendous steps that the society has achieved.

ASSK’s main objective is to establish and sustain favorable mutual links between its members and the Actuarial World of Practice.

Through the Product Design competition and the Convention, it aims at diversifying the actuarial skill set, promote passion, purpose and power of actuarial profession to honor the past, treasure the present and help shape the future. These events also give the society opportunity to serve the students.

We successfully organized and held our 7th annual edition of the Product Design and Modelling Competition and Students Convention this year in June with the students competing for the most coveted title (shield award). The event brought together all the undergraduate actuarial students across the country to develop sustainable, scalable and profitable insurance and financial products that can help bridge some of the gaps in the financial service sector.

This year’s theme was, “Riding on the Wings of Change”, was aimed at embracing change -from traditional actuarial practices to modern practices by enhancing financial inclusion of the various household through adoption of the advancing technology to develop unique customer centric products that would meet the market needs. The event is a learning avenue for the students who will be capacitated to meet vastly qualified personnel and connect with them. The diversity of talks and the shared speakers’ experiences can be a way of helping the students identify the potential strengths and threats associated with the profession

We applaud our sponsors The Actuarial Society of Kenya (TASK), Zamara, CiC , Strathmore University, Predictive Analytics Lab and Britam for the support. We are indebted to the Institute and Faculty of Actuaries Council members for gracing our event. Thumps -up to the Patrons, Executives, Campus representatives, students from University of Makerere, University of Dar Es Salaam and the mentors for continuously supporting the society.

The employer needs to act to address the existing challenges. Actuaries need to embrace change as it is the highest time to focus more on future generations that need to be adopted by lifelong learning and professional development efforts. The society has structured more development strategies to keep it moving such as;

- Having well-articulated research papers
- The East African Actuarial Journal
- Society doing CSR activities on starter issues in SDGs such as climate change, mentorship, equality, financial inclusivity to mention a few.

Actuaries are breaking the boundaries through venturing in other works where actuarial knowledge is applicable by diversifying to non-traditional areas outside the usual practices of an actuary such as, telecommunications, agriculture, Oil and Gas, Manufacturing.

Flipping the other side of the coin, the learning curve is a continuous process as younger employee expect training pathways from the employer as part of career development. Looking to the future, the body needs to make a difference.

“You don’t have to be Great to start, but you have to start to be great.”

This summarizes the results depicted in the editorial publishing made in the course of the year 2018/ 2019. ASSK experience has been inordinate, where I faced a lot of opportunities and challenges. Arguably, this was a learning process that I cherish as it prompted me to unmask my graphics talent. The theme “**Riding on the wings of change**” is timely and I believe it will be of great interest to the readers of this magazine. The profession has had versatile changes in which the student Actuary ought to be aware of, for example, the change in the IFoA curriculum. Notably, I wish to sincerely thank the Editorial Team for perpetual support.



**John Simba**  
**ASSK Editor-in-Chief**

This edition features FA Joab Onyango- Research Pages (8-9), Timothy Machira, ACTUARIAL MANAGER MINET KENYA Interview- Pages (12-13), Opinions and My story- featuring Carol Tunu, a Senior Pension Officer at Kenya Ports Authority –Pension Scheme.

## OUR PATRONS



**Moses Mutuli**  
**General Manager:**  
**Life Insurance(East Africa)**  
**At Sanlam Pan Africa.**

**TASK President**



**Elias Omondi**  
**Actuarial Associate**  
**IRA Kenya**

## Editorial Team

**Isaac Opiyo**  
**Samuel Maina**  
**Dominic Cheruiyot**  
**Davis Omondi**  
**Paul Mbugua**  
**Thomas Okong'o**

[johnsimba@actuaries.or.ke](mailto:johnsimba@actuaries.or.ke)



**Justine Otieno**  
**IFRS 17 Lead**  
**UAP Old Mutual Group**

## Disclaimer

The Editorial team welcomes both solicited and unsolicited submissions to be featured on the 4th Issue. The editorial team reserve the right to accept, reject or request changes on the submissions, as well as edit article's length, basic syntax, grammar, spelling and punctuation errors. This issue may contain statements of facts and opinions of individual authors and are not necessarily of ASSK. All rights reserved. No part of this publication may be reproduced in any form without the consent of Actuarial Students Society of Kenya. (ASSK)

## News *Big Welcome*

This year we welcomed new member Universities Murang'a and Kirinyaga University. Congratulations for joining ASSK.

### *Product Design Competition*

The 6th product design competition and convention took place on 7th and 8th June 2018 at Catholic University of East Africa. We had a large attendance by university students both from Kenya and from the University of Dar-es-salaam. Strathmore University emerged victorious in the product design competition. We wish to extend our sincere gratitude to everyone who made the event successful.



### *ASSK Dinner*

ASSK Dinner was Stupendous. On 12th October 2018 from 5:30 p.m. The Dinner was held in the KICC, themed, "Bridging the gap between the industry and Academia." The chief Speaker was Adelaide Adhiambo CEO, Bluewave Insurance.



The Nairobi Regional Event was held on 19th March 2019, in Mount Kenya University. In attendance were students from Nairobi University, Jomo Kenyatta University, Kenyatta University, MultiMedia University, and Mount Kenya University.



### *Regional Conventions*

ASSK has successfully introduced Regional Event which commenced early this year. There are four Regions namely; Mt. Kenya Region, Nairobi Region, Western Region, and Rift Valley Region. The Mt. Kenya Regional Event was held on 22nd February 2019 in Karatina Uni-

versity, where hundreds of students from Meru University, Dedan Kimathi University, Karatina University, Kirinyaga University, and Murang'a University attended the event.

The following guests Presented:

- Allan Asimba – Head of Actuarial Services, Continental Re
- Selvaraj Chelliah – IT Manager, Jubilee Insurance
- Dr. Maina Azimio – Director, Azima Wellness
- Boniface Kamau Kathithu – Actuarial Officer, IRA Kenya
- Francis Kinuthia – MicroEnsure Africa
- Cyrille Nabutola – Secretariat, TASK
- Dennis Wachira – Actuarial Manager, Intra-Africa Insurance
- Erick Karoi – CEO, Dataactuary Analytics
- Mercy Akoth – Head of Actuarial Function, Grif n Insurance Kenya

The following guests presented;

- Saikumar Allaka- Data Scientist at Equity Bank
- Cyrille Nabutola – Secretariat, TASK
- Justine Otieno- IFRS 17 lead UAP
- Nancy Nketha- Mental Consultant

## News

The Western Regional Actuarial Convention was held on 21st and 22nd March 2019. In attendance were students from Kisii University, Moi University, University of Kabanga, University of Eldoret, and Maseno University.

## Dar es Salaam Visit

ASSK was privileged to have received an invite to the University of Dar es Salaam Actuarial day on the 5th May 2019. Some members of ASSK from various universities graced the event. It was an amazing opportunity to learn about the actuarial space in Tanzania and meet fellow student actuaries in the region. Among the presentations made included one product from our very own members. The product was titled "Jipange Msee", which is slang for "Get your act together". This is an insurance product that targets university students. It aims to cover the students for a short while after graduation in case of unemployment. However, the extent of the cover is dependent on the premiums you paid. This product won the top position in the Product Design Challenge 2018 by ASSK.



“At Kenya Re we provide risk Management solutions that secure the future and create value for stakeholders.”



KenyaReinsurance |



@kenya\_Re | [www.kenyare.co.ke](http://www.kenyare.co.ke)



(+254)- 703 083 000



## Our Partners



### Makerere University Actuarial Society

The Makerere University Actuarial Society unites students pursuing actuarial science, their lecturers, alumni and cooperate entities affiliated with the above-mentioned field. This is aimed at establishing a platform to share information and resources concerning the actuarial field and profession.

The society in conjunction with reputable companies holds conferences on different themes to inform the students and the public at large about topics important to them related to the actuarial field. This enables all parties to interact and create networks that benefit them all. The students are able to get both motivation and advice from those already in the field who share their experiences with them.

This year, a conference themed, “**Planned Retirement, The Gold of Old Age**” was pioneered by the Uganda Retirement Benefits Regulatory Authority (URBRA) with the help of the society.

This conference attracted crowds from the students to the working class.



### *Actuarial Conference on Capital Market*

It tackled issues like;

- Opportunities in the retirement benefits sector.
- Challenges of Old Age poverty.
- How one would plan for retirement
- (most importantly), the Role of Actuaries in the Retirement Benefits Sector.

### ASSAUD

The Actuarial Science Students Association of the University of Dar es Salaam. Out of passion that the ASSAUD members have, it has been able to reach numerous individuals, among them being people who have never heard of it. How surprising, huh! Well, that is how deep ASSAUD's enthusiasm is.

As ASSAUD motto stands “**Creating actuarial aspirants**”, for this year we successfully held an aspiring tour with A-level students from Kibaha boys and alpha secondary schools. This aims to extend the knowledge and inspire potential students to join this uncommon but valuable profession



ASSAUD in cooperation with the University of Dar es Salaam and many other benefactors like National Insurance Corporation, Cooperative Rural Development Bank Insurance, Smart-Class, Tanzania Insurance Regulatory Authority, African Risk and Insurance Services just to mention a few, have been able to launch the Actuarial Career Day once every year to unite all Actuarial Students and experts from Tanzania and Kenya.



## ACTUARIAL DAY

This is the annual event, and for this year it was held on 4th May with a theme “Insurance penetration in Tanzania”. We are so thankful the event went well and had very positive participation from both students and companies

Special thanks to ASSK for inviting us for the National PDC on 6th and 7th June 2018. We had a team of 5 people who represented us well and had a great time and a lot to learn

during the convention. A new experience was gained in terms of presentation, product design, and research paper writing. It was as well a great platform to network.

“

*A new experience was gained in terms of presentation, product design, and research paper writing*

### Using Financial Derivatives to Hedge Systematic Longevity Risks as a Medium of Actuarial Risk Management in Kenyan Market

FA Joab Onyango  
The Core-Founder & Head of Accounts and Finance Functions  
At QFC Corporation

The world of actuarial science and practice has changed over the last couple of years not only in Kenya but worldwide. Since the start of the 21st century, there has been a massive improvement in the quality as well as quantity of years that people live. This has been due to several reasons such as improvement in healthcare, standards of living, rise in the number of middle class among many more factors.

*“ There has been a massive improvement in the quality as well as the quantity of years that people live.*

In addition, the expectation of life has continued to increase in the country with the life expectancy in Kenya increasing from 58 to 62 for males and 60 to 64 years for females. While the country can be proud of this as a good thing, the government sees as potential losses in terms of pensions or perpetual annuities payable upon attainment of retirement ages of employees.

Over the last few years, the government of Kenya had increased the mandatory retirement age of worker from the previous 55 years to 60 years. While majority of workers celebrated “the bonus” years, the government “postponed” their problems for a period of 5 years with the ever increasing life expectancy not only in Kenya but also around the world. Youths did not take this policy well since it denied them an opportunity to join the work force. Who won here?



Systematic Longevity Risk is defined as the risk of a retiree living more years than the expected upon retirement. This means that pension providers, government as well as actuaries must learn the impact of this increasing Systematic longevity risk as well as decrease in mortality risk rates. While the new rates might be hard to predict, it is the work of academicians as well as actuaries to start focusing more of their interests in the Systematic longevity risks field in particular since it poses new challenges for the pension firms offering these services for the retirees who would like to buy annuities after retirement.

The NSSF Act No. 45(2013) did established a pension fund as a compulsory contribution for all formal economy workers as opposed to being a provident fund. Whether a retiree or policyholder chooses to join a Defined Benefit (DB) or Defined contribution (DC) or even a hybrid scheme of the same, the time has come that changes must be made to reflect the new trends in the Kenyan market as well as global aspects.

Correct modeling of the longevity risks will help in correct reserving as well as estimation of the expected annuity payouts from the providers once the retirement age is attained. While many pension and actuarial firms base their estimations on the declining rates of mortality among retirees, it is important to estimate and forecast the Systematic longevity risk trends stochastically by adjusting their values thus reducing the volatility experienced during the estimation leading to massive losses both for the government, insurance companies as well as pension providers.

*How can systematic longevity risk be hedged?*

The Kenyan Market has been slowly but surely adopting the use of financial derivatives as mode of hedging against financial risk management. Likewise, the use of modern hedging techniques such as financial derivatives e.g. financial forwards, futures, swaps, options and commodities will be important in actuarial risk management especially for the players in the market.

***“The Kenyan Market has been slowly but surely adopting the use of financial derivatives as a mode of hedging against financial Risk Management.*”**

How financial derivatives can be used?

### 1. Forwards and Future Contracts

A pension provider can enter into a future or a forward contract where they agree to pay a certain amount of annuities upon survival. This means that the company will be able to save money from the reduced payment after attainment of the certain age agreed upon at the start of the policy thus reducing the effects of Systematic longevity risks. However, upon the attainment of the agreed age, the pension provider must pay the agreed annuity amount.

### 2. Financial Options

As opposed to financial forwards and futures contracts, a policyholder gets into a contract with a policyholder where it gives them a right but not an obligation to pay a certain amount of annuities upon attainment of a certain age by the policyholder.

When the agreed date reaches, the policyholder will have an option but not an obligation to pay the agreed rate of annuity at the start of the policy.

### 3. Swaps

Swaps can happen when two pension providers agree to swap the amount of annuities payable to policyholder or retiree upon attainment of a certain age provided they have taken the policy. This will reduce the Systematic longevity risks upon living longer than the expected at the start of the policy.

### 4. Financial Commodities

With oil discovery in Turkana, price of annuities payable upon attainment of a certain age by the policyholders can be pegged upon the price of oil at the market at that time. The providers will pay the annuities depending on the prices of Turkana oil upon attainment of a certain age agreed upon at the start of the policy. This will offer the providers an opportunity to hedge systematic longevity risk using Turkana oil prices.

In conclusion, the use of financial derivatives is applicable to actuarial risk management just like the way it has been used in financial risk management in the past. As it becomes popular in the Kenyan market, it will be an avenue in which government, pension providers as well as insurance companies can use to hedge against the increasing rates of Systematic Longevity risks to reduce the potential losses expected upon inaccurate estimations

***“The use of financial derivatives is applicable to Actuarial Risk Management.*”**



#### QFC Corporation Services:

- Advanced financial planning
- Investment Management
- Portfolio Resizing and Rebalancing
- Real Estate, investment trusts and OTC products
- Actuarial consultancy services (general, life and pension)

## The New Face of Actuarial Profession.

You can't stop the future, you can't rewind the past, the only secret is to press play.

*-Jay Asher*



Laura Indimuli  
ASSK- ViceChairperson

**T**echnology and analytics are disrupting the world and most especially to our attention the actuarial function. This brings new development and transformation in actuarial science and becomes a game changer in transforming the actuarial student as well.

Today insurance companies and major investment companies are relying heavily on technology to best serve their customer needs. This is shown by need for faster service delivery, productivity and efficiency.

Complex analytics and insure-tech are now spearheading in impacting rapid investment by giving better and faster decisions in the sector. This is a transformative move that introduces a new system of integration of increasingly complex system like new insights on big data generation with insights offered by actuaries. This brings into play a new mind and different skill set in the future actuary who is actually an actuarial student.

*Why the change?*

The future is digital, with automation in actuarial science most insurance companies will reduce cost improve business flexibility as well as share gains. An actuarial student will have to be equipped with data analysis skills by using efficient software like advances excel, python, R software to create algorithms to produce estimates that outperform traditional approaches. These will help remove the risk of human bias where prior conclusion is given more weight than new information. They will then apply their deep actuarial judgement to make decision on spot trends, manage risk and respond real time.

*“The future is digital, with automation in Actuarial Science.*

**T**here is also a need for innovative minds but not only mathematics geek to create new products that will seek to cater for the present customer needs. This will massively increase uptake of insurance policies for a customer who is digitally empowered and seeks faster and reliable services through the mobile phone. This will also be applicable in the underwriting process. As time goes by things are changing with new opportunity cropping. New technology such as Block chain, IFRS17 compliance, index based insurance, cybercrime, automation and machine learning and other emerging issues in the industry are hot topics for research. This goes hand in hand with the change in the institute and faculty of actuaries new curriculum which streamlines on the present day actuarial needs and function. One of the major changes is an inclusion of the data analysis software as practical set up in the exam. The new actuarial student is a transformative mind with innovative ideas which goes to speed with the dynamics of technology and analytics.

*“One of the Major changes is an inclusion of the data analysis software as a practical set up in the exam.*



**Do you have an Actuarial Article?**

Email us: [info@actuaries.or.ke](mailto:info@actuaries.or.ke)  
To get it featured in the 4th Issue Magazine  
and ASSK Social media Platforms.



# TASK

The Actuarial Society of Kenya

## CONTACT US

STRATHMORE UNIVERSITY, Ole Sangale  
Road, off Langata Road, Madaraka Estate.

(+254) 721 - 831 766 // [info@actuarieskenya.or.ke](mailto:info@actuarieskenya.or.ke)

# INTERVIEW



## ACTUARIAL JOURNEY & ACTUARIAL APPRENTICESHIPS

INTERVIEWEE:  
TIMOTHY MACHIRA, ACTUARIAL MANAGER  
MINET KENYA

**M**inet Kenya is the global correspondent for Aon. It is the largest insurance corporation in the country offering services such as Risk management, Reinsurance, Human capital solutions and integrated financial services. Timothy Chege Machira is an Actuarial Manager at Minet with 10 years in the industry. Though a successful Fellow of IFOA, Timothy never really knew what he wanted to do after High school. But he was sure that there was no way he'd be a doctor.

He got interested in the new Actuarial Science course mainly because there were few actuaries then. So he decided to pursue it. If not Actuarial, Timothy would have pursued Law. He has a Bsc. In Actuarial Science from UON and Msc. Actuarial Management from Cass Business School London.

INTERVIEWER:  
ANN GICHURE, CORPORATE AFFAIRS SEC.  
ASSK

1. Most graduates find it quite challenging entering the job market. What was your experience like and what did it take you to acquire your first job?

Actually my first job was here at minet by then it was Aon right after campus. I was in the Pensions Administration Department. I came in with a Bachelor's degree and 7 CT papers so it wasn't much of a hustle for me. My Cv was looking good so you need to build yours. The thing is, you do not necessarily have to get into the department you are applying into, first get the job and work yourself around it.

2. What is an average week like in regards to the number of working hours?

We are an actuarial consulting firm so it is interesting. All the same, it depends on the assignments at a given period. I get into work at 8:15 am and I leave at around 5pm – 7pm. It depends. The busiest periods are around March towards June so we don't have pressure all throughout the year. It's easy.

*“My Cv was looking good so you need to build yours.”*

3. What critical life lessons have you learnt from previous positions?

I worked for Aon for a year then moved to Retirement Benefits Authority where I stayed for 6.5 years. Afterwards, I came back to minet. Critical life lessons I'd say Be Open to Learn, Know how to deal with People. Get your connections and Build your Brand. You must learn how to be professionally dependable. Work hard and be good at it while at it.

4. You have mentored quite a number of actuarial interns. What qualities do you look for in hiring considerations at minet?

The key thing would be the Work Ethic of the person. We would judge this by how they present themselves to us. For instance self-motivation, if someone has started the papers then he is self-driven. Someone who wants to learn, curious and has an open mind. Those are the kind of interns I like working with. Some of them get to be hired by the firm eventually.

5. You are a fellow of IFOA. What advice would you give someone willing to take a similar path?

The only advice I'd give is Start Early. Start them in campus and that will reduce the pressure to finish while in the industry.

6. One of the traditional routes of education is apprenticeships. In the recent past, this has been incorporated in the modern world notably in the UK. Aon among other global firms are offering apprenticeships including the Actuarial apprenticeship. Could you tell us more about it?

In my perspective I'd say Internship is pretty much the same as apprenticeship because from what I understand, this is someone who doesn't need to go to college but is professionally trained. However, the

issue with our market is that we still very much value university education so it might be difficult to incorporate such a strategy in Kenya. If you look at it critically, you don't really need a degree to become an actuary although one of the requirements of IFOA membership is academic qualifications. So it is pretty contradicting.

*“The key thing would be the Work Ethic of the Person*

**7. Is it possible for Minet to pitch prospective apprentices to Aon UK?**

I don't think so .. ummmh Minet is a global correspondent for Aon and that relationship between both separate firms still stands but in a Human Resource point of view, the firms are different.

**8. Would Minet hire student actuaries with the papers but without the degree?**

You have the qualifications, what is to stop us from hiring you? Now the thing is one of the requirements may be the need for an undergraduate degree. So you end up being at a disadvantage. I'd recommend getting the degree first.

**9. If you had a magic wand, what ill in Kenya would you solve?**

Ooh that's a difficult one! What ill would I solve? I'd say I'd enhance the level of integrity. If we could want what is best for our people, our society would be very far. This will cure a lot of problems that we have.

**10. Timothy, what is your parting shot to students?**

Know what you want to do and do it. You don't necessarily have to end up being an actuary. You can always use your actuarial skills in a different career.



ASSET

**Invest with the EXPERTS.**

Invest in **CIC Money Market Fund** through the **CIC Wealth App** and earn a **high** attractive return.

Call **0703 099 322** or email **cic.asset@cic.co.ke** for more information.

**CIC INSURANCE GROUP PLC**

GENERAL • LIFE • HEALTH • ASSET

☎ 0703 099 120 @ callc@cic.co.ke 🌐 www.cic.co.ke 📱 📧

KENYA • SOUTH SUDAN • UGANDA • MALAWI | We keep our word

**CIC GROUP**

# BLOCKCHAIN

BY  
OKELLO ADHIAMBO

In today's digital age, technology is at the core of all aspects of business and personal existence. From batteries lighting up the entire village to microchips that can be used in medical research, wearables, drones, telematics or any of the myriad devices known as the Internet of Things. Technological breakthroughs seem to hold answers to nearly every pressing global and societal challenge. One such wonder is blockchain. Blockchain is a system where everyone shares the same database. It establishes a framework for a single version of the truth that is shared with the network enabling faster, more accurate and efficient processes.

Blockchain has immense applications on various sectors of the industry today. Those investing in blockchain see the value in participating in the ecosystem, but more importantly, they see opportunities. There see opportunities to improve efficiency and customer experience. They also see the opportunity to lower the costs of transactions processing while increasing trust between parties.

For instance, the insurance sector has adopted the technology on various use cases such as: death claims processing, automated underwriting, dynamic pricing, product development, fraud detection, and automated claims for auto policies and life insurance policy purchase and activation.

*“Blockchain is a system where everyone shares the same database”*

Actuaries and underwriters are looking at blockchain and big data to build models that more accurately

predict outcomes resulting in more accurate pricing in insurance. 68% of the insurance companies globally were expected to adopt blockchain in 2018 up from 20% in 2017.

Blockchain technology, however, is still in the early stages of development as different industries are researching and testing use cases and proofs-of-concept. Its potential is clear with many people anointing it as a revolutionary technology. Yet, as with all new technologies and innovations, there are risks and challenges that must be overcome in a meaningful way. Questions arise such as, how do you ensure protection against hacks? Critical to making blockchain widely applicable is a fully developed technology.

Through the secure sharing of information, blockchain technology may well be the solution to the industry's high expense ratios. The key to success remains enterprise IT's ability to pick, analyze and determine the right areas for technologies like blockchain to considerable value.



“

We believe in using disruptive  
**TECHNOLOGY** and advanced data  
analytics to craft innovative  
insurance products that increase  
**PENETRATION.**

Contact us:

(+254)- 722 449 342

ParkSuites Offices, Parklands

Email us at: [info@digiasurance.com](mailto:info@digiasurance.com)

## THE PLIGHT OF THE GIRL CHILD

“THE PLIGHT OF THE GIRL CHILD” is what I originally intended to name this article. However every time you hear about such a topic all that follows is about how the girl child is oppressed, discriminated and marginalised. Sadly, up to date this is still true in very many parts of the world.

The biggest explanation to this is usually a wrong mind-set. Many organisations and individuals have gone to great lengths to correct this and great milestones have been achieved. Years ago women would not be allowed into a classroom and now women are CEOs of billion dollar companies, presidents etc. Let's bring this closer to home and see how women in the actuarial profession are faring.

We cannot mention female actuaries without mentioning, Marjorie Ngwenya, the Immediate Past President of the IFoA. She qualified as a fellow in 2006, was an active volunteer for the IFoA, editor of the actuary for 3years and served as a member of the Audit and Risk Committee for 4years. This Zimbabwean lady has gone where most wouldn't dream to go. Her story is truly an inspiration and proof that there is no height a woman can't reach. In Kenya ladies in the actuari-

al profession are doing amazing work. Dr Lucy Muthoni, has been named “the lady mathematician”. She is a lecturer at Strathmore University, has attained her PHD and has published a book titled “Application of Multi Yield Curve Modelling to Kenyan bond market”.

Mrs Sheila Gatu is another extra ordinary lady. She is the senior actuarial analyst at Zamara, a co-founder of Faventia Actuaries and is currently part of a task force mandated to transform the National Hospital insurance fund.

“Her Story is truly an inspiration and proof that there is no height a woman can't reach.

Mukami Njeru currently the senior actuary at L&H East Africa was first Kenyan lady to qualify as a fellow of IFoA and was named among the top 40 women under 40. I could go on mentioning the achievements of many other ladies in actuarial science in Kenya and abroad. However, the numbers give quite a different picture

### IFOA MEMEBERSHIP BY GENDER AS AT DEC 2016

Gender	AFFILIATE	ASSOCIATE	CAA	FELLOW	HONORARY-FULL	SAA	STUDENT	TOTAL
FEMALE	158	102	3	3334	8	127	6194	9926
MALE	444	325	2	9426	98	168	9500	19963
TOTAL	602	427	5	12760	106	295	15694	29889

As at 2016 IFOA had 19,963 males (67%) and 9,926 females (33%) members.

As at 2018 IFOA had over 31000 members with 66% males and 34% females.

The numbers prove that the girl child is still under represented.

Today I listened to a lady Courtney Ferrell on TED TALKS. She said something that made a lot of sense. She said “we don’t mentor young girls because nowadays the ladies look polished. They don’t look like they need mentoring. They look like they have everything figured out but the truth is that they don’t.”

Maybe most girls just need to see examples of fellow women who have excelled in areas depicted to be a man’s territory. Maybe we need to make conscious efforts to motivate the girl child in the actuarial profession. We can’t all change the world but we can make conscious

effort in each of our spaces to encourage the girl child to reach for the stars in whatever avenue.

So to all ladies reading this, the sky doesn’t have to be limit, you can make it just another start!



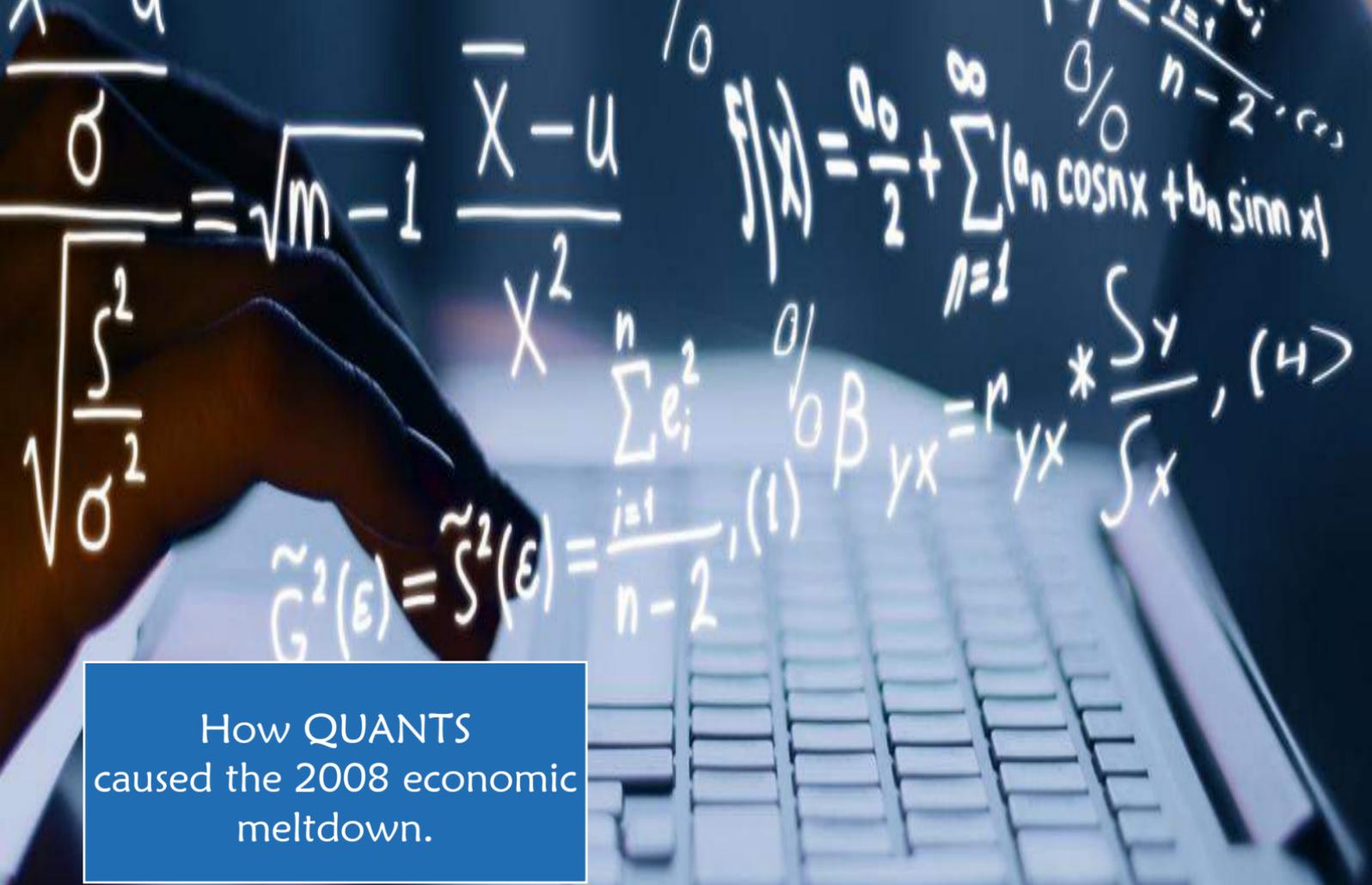
By  
MERCY MUNGAI  
RESEARCHER AND STRATEGIST  
TSAVO

“Most girls just need to see examples of fellow women who have excelled in areas depicted to be a man’s territory.”

**Insurance Regulatory Authority**  
IRA

PROTECTING POLICYHOLDERS AND INSURANCE BENEFICIARIES LIKE YOU™

[f @IRAKenypage](https://www.facebook.com/IRAKenypage)
[@ira\\_kenya](https://twitter.com/ira_kenya)
[commins@ira.go.ke](mailto:commins@ira.go.ke)
[\(254\)-020-4996000](tel:(254)-020-4996000)



How QUANTS  
caused the 2008 economic  
meltdown.

Who is a quant? It is sad that most people, especially in the developing world, do not even know that such a job exists. Oblivious to the fact that in the next 10 - 15 years, quants will be at the very centerpiece of investment banking.

A quant (quantitative analyst) by definition, is someone who tries to model human behavior in financial markets so as to try and offset the risk of default, i.e. failing to pay a loan- in layman's language. They also try to model how markets may perform in the future so as to predict the necessity of engaging in derivative contracts. Derivative contracts are financial instruments such as options, swaps and forwards. But that is a whole new topic which I may delve deeper into in future articles, upon your request. But if you are studying Finance, Economics or Actuarial science; among other courses that may be related to economics, you may have a hint of what I am talking about.

“A quant (quantitative analyst) by definition, is someone who tries to model human behavior in financial markets so as to try and offset the risk of default, i.e. failing to pay a loan- in layman's language.

Now, derivative contracts may be a dangerous or good financial instrument, depending on how they are used. Let me use an example so that I can put you into perspective. It is common knowledge that our local airlines Kenya Airways has been languishing for a long period now. This is mainly due to mismanagement by a string of its recent CEOs. I will refrain from quoting their names so as to avoid defamation charges.

However, you can carry out your research and find out more for yourself. Jet Fuel is not a cheap commodity. So many airlines hedge (in other words, enter into derivative contracts) against the price of Jet fuel so as to offset the risk of an increase in prices. This is the very basic edifice of a derivative contract. Let say the price of Jet fuel now is 1000 dollars. You enter into a derivative contract that basically stipulates; in case the price of Jet fuel rises, let's say by 500 dollars thereby taking it to 1500 dollars. You will still purchase it for 1000 dollars.

The hedge fund will assume the additional cost of 500 dollars. So by doing that, you have mitigated against the risk of price rise. The downside is that, if the price falls, maybe to 700. You will still be forced to pay 1000, as per the contract. The additional amount (300) will go to the hedge fund, and that is how the hedge fund makes it profitable. This is what exactly happened to KQ. The CEO was clearly advised that the projections

show that the prices would fall. However, he still went over the heads of his advisers and hedged against price rise.

As predicted, the prices fell. You can only imagine. Prices of fuel are retailing at maybe 500 dollars per liter but you are still forced to pay 1000 for a long period because these contracts can last up to even a year. KQ assumed huge losses. Its share price went on a downward spiral. The CEO then bought its shares at a very low price. Knowing that KQ is a government-owned corporation hence the government must intervene, and it did. After the government pumped millions into the company to cover up for his own mess, he sold the shares at an inflated price thereby making millions, if not billions. If this is not insider trading, I don't know what is. Corporate espionage at its very best?!



That is just but a mere example of the harm of derivative contracts. Now think of what happened to KQ, on a much wider scale. On a nationwide scale. I am sure most of you in one way or another have heard even fragmentation of the story of the 2008 Economic Crisis. Jobs were lost, bank loans defaulted and billions of revenue lost. That is simply why I admire Former President Barrack Obama. I can't think of any other worse time to be president. Yet somehow he managed to pull the country through the rubble. It was late 2007 when it happened. A busy day at Goldman Sachs, along the famous wall street.

*“Derivative contracts may be a dangerous or good financial instrument, depending on how they are used.”*

Many stockbrokers haggling to close deals at the top of their lungs through the telephone in the trading halls. Just another busy day at the New York Stock Exchange. Many oblivious to what was to come. This is where the Quants come in. Wall Street now is but a shell of what it used to be. Why? What you so in the famous movie, Wolf of Wall Street is just but a facade! Nowadays there is no need for a trading company to have hundreds of stockbrokers. For what?! At the dawn

of trading algorithms and High-frequency trading. One trading algorithm can easily do the job of 100 brokers at a much faster speed. Trading at the speed of light, they call it. A trading algorithm is basically a computer program designed to place trades at a much higher frequency and speed than a human being. One simple trade can happen in a fraction of a second. Now you can see where the appeal is. A Quant is basically someone with a good grasp of mathematics and maybe a substantial knowledge of economics and programming.

I remember when actuaries were thought of as mathematics wizards. However, what most people don't know is, the level of knowledge that an actuary is required to know to get a job as an actuary, is the level of knowledge that a quant needs to even get a call up for an interview. Move aside actuaries, there is a new sheriff in town. Most quants have a firm background in mathematics, topped by masters and a Ph.D. So if a quant tells you something is right, then it's only normal that you have to agree. I mean, this guy has enough education to last you two lifetimes, and that was the major problem. They kept on complicating their models. They got cocky, and finally, the bubble burst! A phrase was once put forward.

*“What most people don't know is, the level of knowledge that an actuary is required to know to get a job as an actuary, is the level of knowledge that a quant needs to even get a call up for an interview.”*



#### SUBPRIME MORTGAGES.

Subprime mortgages are basically mortgages tailored for clients with lower credit rating because their default risk is considerably higher. This is where the quants were called in. They continued to advise financial institutions to lend. Lend! Lend! Lend! Two successive governments, Bush and Clinton also advised the financial institutions to continue to give out subprime mortgages. The balloon was filling with air, waiting to burst! And burst it did. The numerous people who had been issued with subprime mortgages were unable to pay. The economic crisis happened. POP!! Went the balloon.

## ARE ACTUARIES NEEDED IN THE BANKING SECTOR?

Since the year 1984 up to 2015, many commercial banks have collapsed. The first wave was between 1984 and 1989 where nine banks mainly owned by family/ community collapsed. The second wave which was between 1993 and 1995 where nineteen banks were swept away. The third wave occurred in 1998 and six banks collapsed. The last and the most recent one is between 2007 and 2015 where four banks collapsed. It is so unfortunate that none of these banks was put under liquidation.



It is time for banks to rethink their business strategies even beyond the most obvious strategy of cost cutting in the interest capped environment. At this industry transformation is the vital role that an actuary plays. Actuaries are wired to play out outcomes of dozens of scenarios. Actuaries can work across a range of banking roles; predominately in front-office investment banking, middle-office finance and credit risk related roles. Actuaries expected to work in the banking sector come from a diverse range of backgrounds; mainly life and general insurance and a strong emerging segment of actuaries with careers starting in banking.

Credit risk modeling roles are a natural bridge for actuaries with modeling and programming skills acquired in general insurance practice is applicable in assessing the credit worthiness of a potential client that is the probability of defaulting on a loan. Technical product pricing (as led by actuaries in the insurance sector) can be used in designing certain banking products. Taking capital into account and the amortization of sales commissions along the life of the product can be transferred in the banking and asset management products. Risk-based capital and internal credit risk models are still very much a “work-in-progress” and some actuaries are emerging as thought-leaders in these fields.

“

*It is time for banks to rethink their business strategies even beyond the most obvious strategy of cost cutting in the interest capped environment. Actuaries are wired to play out outcomes of dozens of scenarios.*

Market risk management and capital management requires actuaries working in the economic- capital calculation because of their expertise in the analysis of market data that is the interest rate in particular. This serves as a base for several capital management activities, of which stress and scenario testing would be the most important. Regulatory change, in particular, the Basel III liquidity requirements are opening up opportunities for actuaries for the technical challenges of liquidity risk measurement and modeling; a largely “greenfield” specialist area. More training in banking-specific techniques and regulatory requirements is required to seize the current opportunities open to actuaries. Regulatory change and the evolving challenges of banking risk management since the 2008-2009 financial crises are seen as the key drivers for the future opportunities of actuaries in banking sector. Majority of the actuaries will be motivated by the breadth of role and responsibilities available in the banking sector compared to traditional practice areas. It's now evident that actuaries are needed in the banking sector.

Compiled by;  
PETER M. KATIKU  
ASSK & TASS CAMPUS REP



## Our World of Services:

- Advisory services
- Asset and Insurance Consulting
- Retirement fund Administration
- General Insurance Broking.
- Medical Insurance Broking
- Life Assurance Broking
- Financial Planning
- Actuarial Services

## CHITTER-CHATTER WITH TUNU JUMA

INTERVIEWER:  
LYDIA MORAA

**A**m I too young to plan for my sunset days?  
In commemoration of International Women's day, meet Carol Tunu, a Senior Pension Officer at Kenya Ports Authority –Pension scheme. She is elegant as she is intelligent. Moreover, she holds not only a Bachelor's in Actuarial Science but also an MBA from the University of Nairobi. Carol is an entrepreneur, an Independent Financial Consultant, a mother of two and a lovely wife to Fredrick. She is a great swimmer and enjoys charity work.

From personal engagements, I can attest that she is not only an inspiration to young women like myself, but also an agent of positive change more-so in the field of investments and pension. I was lucky enough to have a brief conversation with her; it was insightful, inspiring, and enlightening. Here are some of the questions I asked

**What's your typical day like?**

My typical day majorly involves technical and administrative duties concerning the two pension schemes: The Defined Benefits Scheme and Defined Contribution Scheme. I ensure that pension benefits are accurate, fair and paid in time.

**What do like most about your job?**

I find fulfillment in proper service delivery and ensuring that the pensioners enjoy the benefits they worked very hard for over the years.

**What is the most interesting or touching story you have worked on?**

There was a case involving a young dependent that was most disturbing to me. The father to the young boy, who was the

primary pensioner, passed on. Therefore, his wife who then received pension as the next of kin, left her matrimonial home and got re-married. Unfortunately for the little boy, his mother dumped him at a boarding school and abandoned him. The boy was rendered homeless with the burden of tuition fee arrears. His teachers offered to house him over the holidays since he had no place to call his home. When things got completely out of hand, the young boy visited our offices and reported his grievances. Upon unanimous decision, the payments were discontinued towards the woman and directed the pension payments to the little boy. It was a melancholic situation, and I cannot stop to wonder the kind of society we live in today.

**What do you think is the future of an Actuary in Kenya?**

The roles of an actuary have evolved from the traditional actuarial valuations for instance pension schemes: to alternative investments, bank assurance and private equity. So actuaries have so much more to offer especially to this digital era. Soon enough, actuaries will be needed in all areas of business contrary to tradition and their prevalence in the insurance industry.

*“The roles of an Actuary  
have evolved from the traditional  
Actuarial Valuation.*

**The theme for International Women's Day this year is Balance for better. In your opinion to what extent has this been achieved in the actuarial field?**

First and foremost, I want to commend all the female counterparts who chose the “complete” the actuarial path. The truth is that the number of women in the actuarial field is higher as at today in comparison to a decade ago. The rate at which women are entering the field is also commendable. We are going places indeed.

**In retrospect, what advice would you give my generation (generation Z) and the millennials in regards to planning for their financial freedom and more-so in planning for their old age.**

(I asked this question because I felt an urgent need to plan for my future. Working at the pension department gave me firsthand experience on issues the seniors face in their sunset years. While most of them earned fairly well whilst in service, they suffer financially albeit receiving their pension. Let me explain: pensioners are old people. Old people face chronic illnesses as their bodies grow frail by the day. Consequently, they need lots of funds for proper medical services. Most people do not adequately prepare for this financially for their medical needs when they age.)

Millennials are a group that can work five different jobs in a span of a decade. Consequently, the challenge of non-preservation of their benefits arises. Whether your employer provides a pension plan or not, make sure you invest in one. You could either join the public or private pension sector. Ensure you invest between ten to fifteen percent of your earnings to cater for pension. As you change your job ensure you preserve your benefits and consolidate them in one fund.

Post-retirement medical scheme has proven to be pre-eminent. It is still new in Kenya. This is a purely medical scheme whereby; retirees can access funds to cater for their needs related to health. It has been implemented by the defense force of Kenya and National Intelligence service. We are also trying to apply it at my organization. I believe this scheme is imperative for well-being of retirees.

Assuming a “tipping point” in insurance & pension industry, what would it be?

I think there is need for the insurance sector to merge with the banking sector. A majority of Kenyans and millennials work in the informal sector. Therefore, products need to be linked to long-term or retirement savings, such that they any regular mwananchi can access, especially those who work in the informal sector. For instance, the banks and the insurance industry can come up with a product whereby a policyholder invests: then a portion of the savings are then transferred to long-term benefit plan (like a mortgage, or life cover or a pension plan), and the rest the rest saved up to enable them to acquire short-term loans to expand their business and reach their short-term day to day challenged. Therefore, one can save vis-à-vis access funds to cater for short-term needs alongside the assurance of a long-term benefit cover. Inter-twined products for example investment account that also offer education cover are highly attractive and should be promoted.

“ I think there is need for the insurance sector to merge with the banking sector. A majority of Kenyans and millennials work in the informal sector. Millennials are a group that can work five different jobs in a span of a decade.

# actserv

Actuarial Services (E.A) Limited

## OUR SERVICES

- Health Care Insurance Consulting
- Enterprise Risk Management
- General Insurance Consulting
- Retirement Fund Consulting
- Life Insurance Consulting
- Investment Consulting
- Management Consulting
- IT Services

26th Floor UAP-Old Mutual Tower  
Upper Hill Road, Upper Hill  
P.O BOX 10472-10100, Nairobi

Email: [info@actserv.co.ke](mailto:info@actserv.co.ke)

Tel: (254)-20 271 0028

Website: [www.actserv.co.ke](http://www.actserv.co.ke)





kenbright

*F*inancial SOLUTIONS  
your Preferred  
Provider.

specialized in:

- Health
- Actuarial
- Reinsurance
- Risk Management
- Regulatory Advisory

## Our contacts

Ground Floor: ACK Garden House.  
1st Ngong Avenue. P.o BOX 28281-00200  
Nairobi, Kenya

E-mail: [ceo@kenbright.co.ke](mailto:ceo@kenbright.co.ke) | website: [kenbright.co.ke](http://kenbright.co.ke)

since 1993

## *THE CURRENT STATE OF AFFAIRS: FROM GRASS TO GRACE.*

“Twenty years from now you will be more disappointed by the things that you did not do than the ones you did do. So throw off the bowlines, sail away from safe harbor, catch the trade winds in your sails. Explore. Dream. Discover.” Are such popular words from Samuel Langhorne Clemens, the American writer, popularly known by his pen name Mark Twain. It is worth noting that the Actuarial Students of Kenya (which has been transformed over the years to Actuarial Students Society of Kenya) was originally meant to be an umbrella body for six actuarial associations. To quote the words of the founding ASSK Chairperson Cyrille Ernest Nabutola, “as the heads of the different students’ associations, it has come to our attention that there was disconnect between what we were doing and achieving in the various campuses.” There was hence need to unite the Actuarial Science students and student actuaries towards a common goal.

Over the years, after realizing that products designing and pricing is a key function that actuaries perform in their day to day routine in insurance companies and in solving problems faced in other fields as well, the successive executives inaugurated various professional events and competitions to realize this and mentor the students. These competitions also equip and prepare the Actuarial Students for these noble tasks ahead. Serving as the Students’ Liaison Officer has been such an eye opening task to me. The ASSK students membership has grown to over 5000 spread across 24 universities. As many of us would agree, managing large numbers of people could turn out to be hectic at times. However, an ‘O’ does not always signify obstacles, but opportunities. Our roles have inculcated in us vital skills which are not taught in school. The many people whom we meet during these events has placed our networking at top notch.

Inter -university events have been over the rise especially during the last one year. This owes to the fact that most of our members unconsciously competent, motivated and consistent. The visionary leaderships of most societies have realized that individual stories are singular but the destinies for all the associations are shared. The university administrations have also been supporting most of these visions. The corporates as well have realized the greatness already in the students and hence joining in harnessing this greatness with more emphasis on innovation and research. Our combined efforts will surely bear fruits at the end. I encourage all the Actuarial Science students and our magazine readers that all the solutions to the problems in the world are in between our ears. We should not allow our egos to be bigger than our intellects. Those with weaker minds will have to be servants of others. If indeed you are great, the others will give you your position.

I take this chance to thank the Actuarial science Students for giving me this opportunity to serve them –my hobby– . I wish this society the very best as it creates more awareness about the actuarial profession to the general public and as it nurtures prospective actuaries.

GEOFFREY MUSYOKA  
ASSK Students’ Liaison Officer

## THE STUDENT ACTUARY

**A**ctuarial science is a great profession but can also be a big downfall and waste to some. Only those who take it upon themselves to raise the bar and excel. Actuaries when left unbridled by proper and smart governance and practice, often run off the rail in their profession. Finishing the whole profession is one thing, and putting the great brilliant ideas gained into practice is another. Most actuaries entertain big powerful ideas secretly without breathing a word of them to anyone because of reluctance, fear, lack of a great field or lack of resources.

**A**n actuary is not expected to have a poor cash habit or suffer a pinch of a plateauing career. Developing good habits towards cash will help build great wealth. This can be achieved by staying modest and living below your means, avoiding debt at all cost, selling things you no longer need, not relying on your job alone and most importantly, creating a budget and being disciplined about it. To avoid a boring flat career, an actuary should know the steps required to develop an idea and bring it to fruition.

If we do not utilize our full potential, our interests get waned, we fall into frustration, then into depression, because life becomes pointless especially if we consider all the effort we put to reach where we are.



*Peter Gatitu*

*ASSK VC. Organizing Secretary*

**W**e ought to be smart, have a great strategic plan and be cash discipline. Let's also remember not to focus on the digital world only on business financing but also on traditional financing which brings in its great advantages, e.g. (a thriving bartering network or rather swaps).

“*Developing good habits towards cash will help build great Wealth.*”



There are three major Mobile Network Operators in Kenya namely Safaricom, Airtel, and Telkom. Kenya has a 91% penetration of mobile subscriptions compared to Africa's 80%, according to business today. With a population of about 51.58 million, a total of 43.3 million Kenyans has access to the internet in the country.



However, insurance penetration in Kenya still lies at 3% as at the end of 2018. Accessibility to the customer base, lack of trust, lack of awareness and affordability of insurance policies are among the main reasons for this low uptake of insurance in the country. Some of these challenges that traditional insurers have failed to address can find their eureka moments in engagements and partnerships with some of the leading MNOs in the country.

Expounding on the affordability challenge you will find that most of the insurance sold to the common mwananchi is expensive. This can be explained by the fact that there is a long chain of intermediaries involved between the direct insurer and the insured.

Some of these intermediaries are the insurance agents and brokers involved in the business of selling insurance. Furthermore, the coverage of these intermediaries is limited and most of the times only in urban areas, therefore, failing to reach out to a larger number of potential consumers. The larger population remains inaccessible. In this digital era, insurance still sounds like a foreign term for most people in the country.

“Insurance penetration in Kenya lies at 3% as at the end of 2018.

BY  
Caspar Akali  
ASSK Treasurer

For those who pursued or are pursuing actuarial science, do your parents really know what the course is all about?

I guess only a few of our parents do know. Consumer ignorance will still haunt us if we chose to stick to the conventional insurance process and fail to adopt change in the process.

Through partnerships with MNOs, innovative insurance companies will have access to newer customers leveraging on their massive customer base, unique distribution channels, emerging payment mechanisms (airtime, mobile money) and trusted brands to widen their market. Talking about policy subscriptions, a request can be made through USSD codes or call centers which a larger population is conversant with from daily interactions with their mobile phones. Helpline call for claim requests could also be implemented

MNOs can positively impact medical insurance with regards to the accessibility and lack of awareness among the consumers in a number of ways. Daily family health tips and wellbeing tips could be shared to the policyholders via SMS, follow up calls from doctors, e-prescription sent to policyholders and electronic consultation records provided via their phones.

A good example of a firm that has adopted this kind of partnership is MicroEnsure Insurance Company Inc in the Philippines. MicroEnsure launched a freemium life insurance product with Telenor and Airtel where the policy was free given minimum monthly airtime spend. Through this product, consumers learned about insurance observed its benefits and became comfortable with the product, eventually paying to upgrade their coverage.



Emerging consumers face the highest level of risk, but have the least access to insurance. Partnerships with MNOs will ensure that those people around the world that need insurance the most should bad things happen to them get affordable policies.

## *Robotics, Automation and Machine learning, the Future of Insurance Industry.*

Unlike traditional automation, Robotic process Automation(RPA) has the potential to boost overall insurance operational effectiveness with less investment shorter cycle time and higher short term business value. Adoption of advanced technology has helped in data analysis, improved customer experience, tasks are performed faster, more cheaply and high degree of accuracy. Robotic Process Automation is trying to eliminate the scope of human error. In insurance AI is used in risk assessment and selection and in damage categorisation. With the advent of deep learning, insurance will be able to mine and interpret data than ever before, underwriting will become quick and automated, patterns of fraud will become more easily detectable and risk management will be perfected.

“

*In insurance AI is used in risk assessment and selection and in damage categorisation.*

Under Automation I will talk about vehicle telematics and Auto insurance/usage- based insurance (UBI). Vehicle telematics is an umbrella word for automation in automobiles such as invention of the emergency warning system for vehicles. GPS navigation, integrated hands-free cell phones and automatic driving assistance. For GPS, it will help the insurance to monitor the vehicles and automatic driving assistance systems will in away reduce chances of causing an accident. Through the use of Usage-based insurance (UBI), vehicle tracking (which is monitoring the location, movements status and behaviour of vehicles achieved by a combination of GPS receiver and electronic devices installed in each vehicle) the driver will be monitored directly while he drives, information is transmitted to an insurance company. Insurance then will assess the risk of that driver having an accident and charge premiums accordingly



Robotics will be used in claims management process to help predict the eventual outcome of claims and help in identifying the appropriate strategy based on prediction. Drones have been developed to help in claim validation. This will reduce cost for operations, fraud detecting and prevention, improved risk assessment accuracy. In claims processing RPA will help insurance to quickly input the First Notice of Loss (FNOL) automatically notify loss adjusters and give assignments to claims handlers and integrate all the disparate claim information regardless of the source speeding up the process and creating a better customer experience. In summary Robotics, Automation and AI will enhance efficiency, improve accuracy by eliminating human error, reduce operational costs, digitalize insurance activities and detect fraud cases hence improve performance in insurance sector. This is the future of insurance industry anticipates.

By Joshua A. Musembi.  
Secretary General  
TASS.

## Career and passion

In whichever level you are it has come to the attention of your career which you would like to undertake. Many of us at our young age mostly had high expectations and wished to be doctors, pilots surgeons and many more but something happens that they miss something crucial. Also, in some cases, it can hit you on a Monday morning wondering why do I work here? is this all there is?



What's missing is passion, a positive emotional connection to our work or even in our studies. The good news is that with introspection, planning, action, and support, you can redirect your career to incorporate what truly excites and invigorates you. What am aware is that despite the good news that you can incorporate planning.

Your passion may take many forms: working with people, grappling with an organizational puzzle, telling stories or building that better mousetrap. It's wise to come up with more than one endeavor that energizes you because some passions don't lend themselves easily to a career.

*“What's missing is passion,  
a positive emotional  
connection  
to our work or even our  
studies.”*

what about what already happened?

There is still some good news, in our economy currently, we have good access to resources, the internet, where you can learn, research and apply what excites you most.

I am a graphics designer and a web designer with experience of creating work already in the market but without a single physical trainer but internet. Following your passion is best practice despite it may not be easy but you land in a place that excites you. Let's embrace the use of resources around us to learn and apply it in our career. Of course, many of us don't have the time and money to undertake a total career change. Big changes typically come with big expenses. But some professionals develop creative ways to infuse their careers with a passion that has been a long-term avocation.



By  
Paul Mbugua

'x' tends to Zero but never equals  
Zero



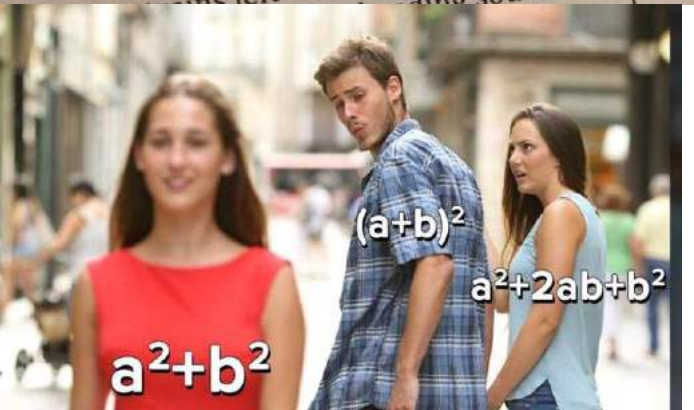
### Math Test

1. Bob has 36 candy bars. He eats 29.  
What does he have now?

Diabetes.  
Bob has diabetes.

Cancelling x in  $\frac{\sin x}{x}$  is a sin.

When she dates a drug addict and says,  
"I will change him with my love"




#Actuarialchronicles

## Actuarial Students'


Society of Kenya


Contact us:

Actuarial Students' Society of Kenya  
P.O BOX 706-00517  
Uhuru Gardens- Nairobi

 assk\_254

 assk\_kenya

 @studentactuaries

 www.actuaries.or.ke

# PICTORIAL









Abraham Kimei  
Chairperson



Laura Indumuli  
Ass. Chairperson



Loice Moraa  
Secretary



Casper Akali  
Treasurer



Maxwell Bolton  
Organizing Sec.



Anne Gichure  
Corporate Affairs



Geoffrey Musyoka  
Student Liason Officer



John Kamau  
Ass. Treasurer



Peter Gatitu  
Ass. Organizing Sec.



Achary Felix  
Ass. Secretary



John Simba  
Editor

# Britam

With you every step of the way



**Janjaruka na Imarika  
Biashara plan**

Buy Online



**ELIMU BORA  
EDUCATION PLAN**

Your child's future



**Britam Prestige  
Motor Insurance**

Go the  
extra mile



**Britam Health**

Your Flexible Insurance Plan

**Britam**  
With you every step of the way

**Contact us:**  
Mara/Ragati Road Junction,  
Upperhill P.O BOX 30375-00100  
+(254) 703 094 000



+ (254) 711 065 000

UAP Old Mutual Tower-Upper Hill Road

P.O Box 43013-00100, Nairobi, Kenya

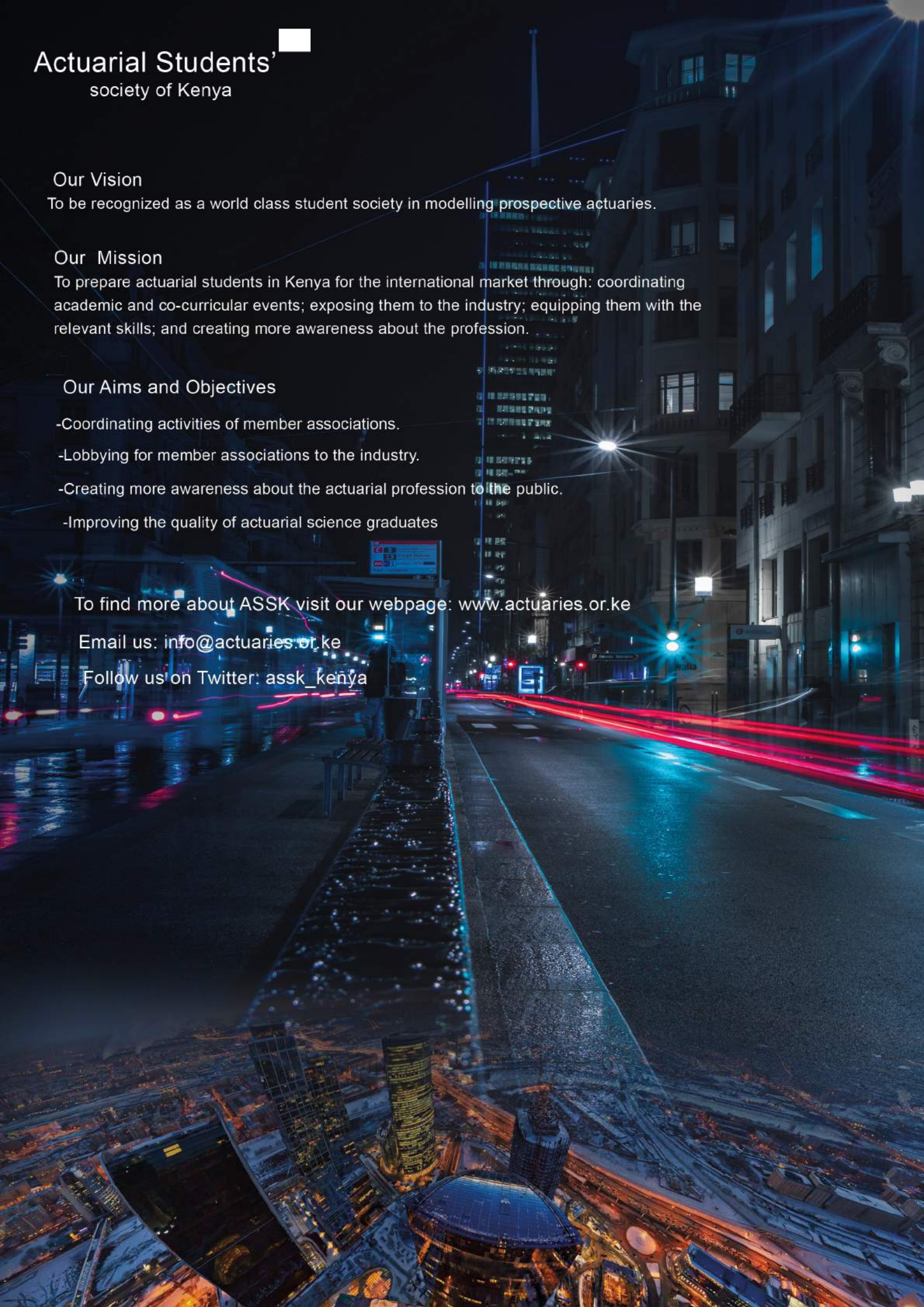


**Strathmore**  
UNIVERSITY

Madaraka Estate, Ole Sangare Rd

Nairobi

[www.strathmore.edu](http://www.strathmore.edu)



# Actuarial Students'

society of Kenya

## Our Vision

To be recognized as a world class student society in modelling prospective actuaries.

## Our Mission

To prepare actuarial students in Kenya for the international market through: coordinating academic and co-curricular events; exposing them to the industry; equipping them with the relevant skills; and creating more awareness about the profession.

## Our Aims and Objectives

- Coordinating activities of member associations.
- Lobbying for member associations to the industry.
- Creating more awareness about the actuarial profession to the public.
- Improving the quality of actuarial science graduates

To find more about ASSK visit our webpage: [www.actuaries.or.ke](http://www.actuaries.or.ke)

Email us: [info@actuaries.or.ke](mailto:info@actuaries.or.ke)

Follow us on Twitter: [assk\\_kenya](https://twitter.com/assk_kenya)