

FIDIC-GAMA 2017



Conference on Infrastructure

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African Partnerships for Sustainable Growth

UNTAPPING OUR BUSINESS POTENTIAL, WHY SO FEW ENGINEERS ARE ENTREPRENEURS?

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Scope of Presentation

- Introduction
- Literature Review
- Survey
- Discussion
- Conclusion





INTRODUCTION

- Entrepreneurship is self-employment through business ownership, which has elements of **risk**, control and reward. (John Huges)
- Engineers are valuable in solving technical problems. Problem solving alone is insufficient to create new **products** and **services**.
- An entrepreneurial engineer will want to examine problems in the context of the past, yet forge ahead with the mindset of problems as opportunities for innovation.
- Each problem will have many potential solutions, **none** of which has been successfully attempted before – **Risk**.
- Engineers are trained to interpret exact science, taught to design within the parameters of perfection.
- A good Entrepreneurial embraces risk as an opportunity....



WHY SO FEW ENGINEERS ARE ENTREPRENEURS



Literature Review

Engineers Weaknesses when it comes to Entrepreneurship **Intelligence and precision.**

- Engineers are highly intelligent and can become frustrated when others with whom they interact are not as knowledgeable about their subject.

Entrepreneurs should exercise patience & flexibility

- Engineers also value precise solutions that sometimes may not be worth the effort, time, or money necessary to complete.

Entrepreneurs sometimes need to make quick decisions and can't wait for precise solutions.

(Mark Crawford)

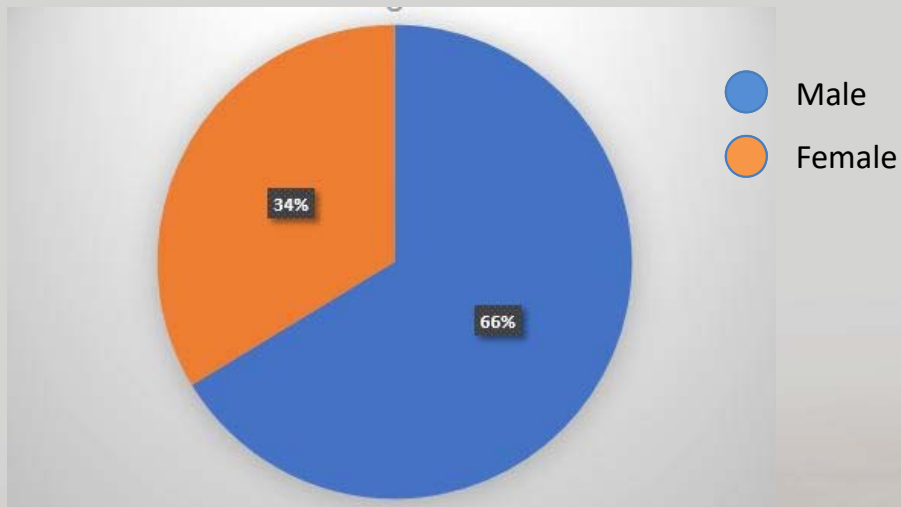
- Focus on maximising the functionality of the business before focusing on customers
- Many colleges offer course curricula focusing on entrepreneurship, these are often limited in scope to business creation and reach a limited portion of the student body.



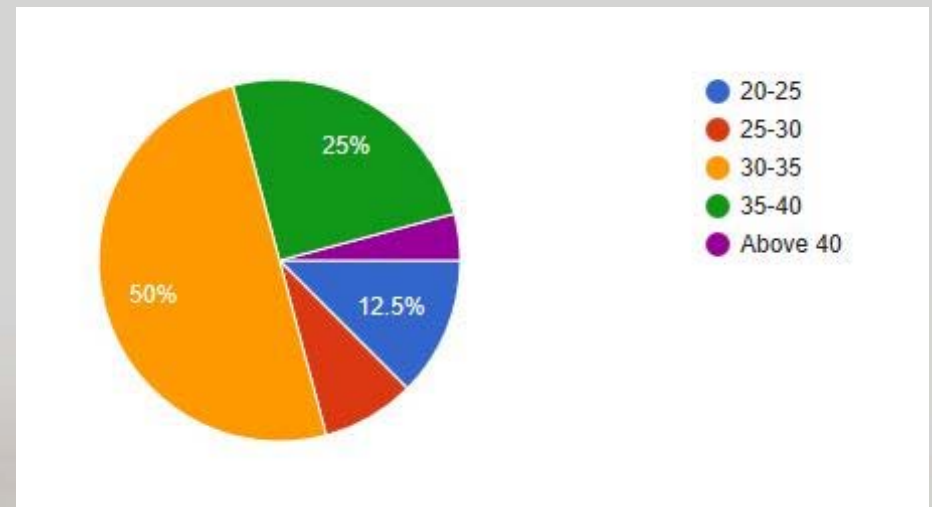
Survey

Respondents

GENDER



AGE GROUP

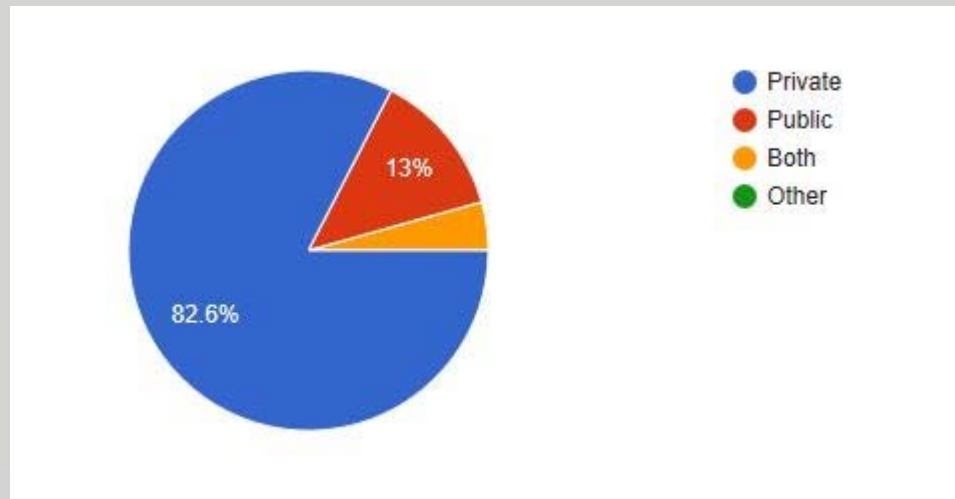




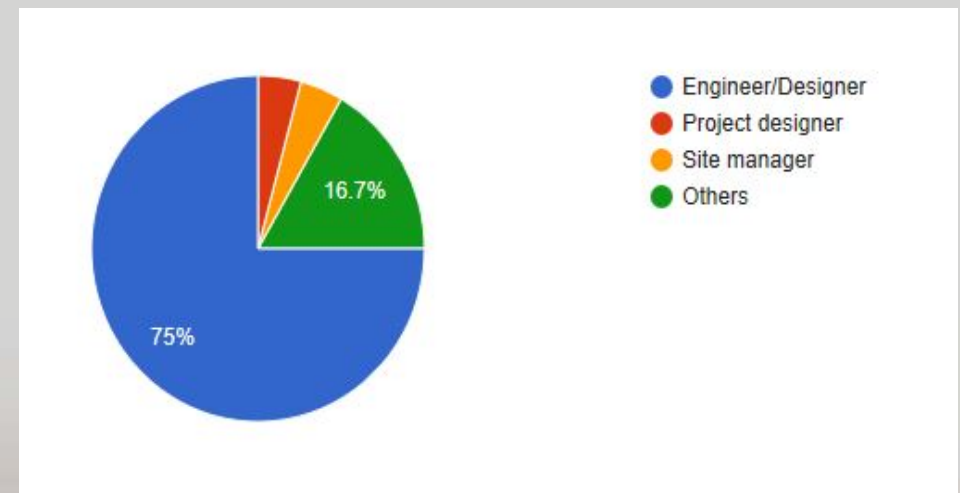
Survey Cont'd

Respondents

ORGANISATION TYPE



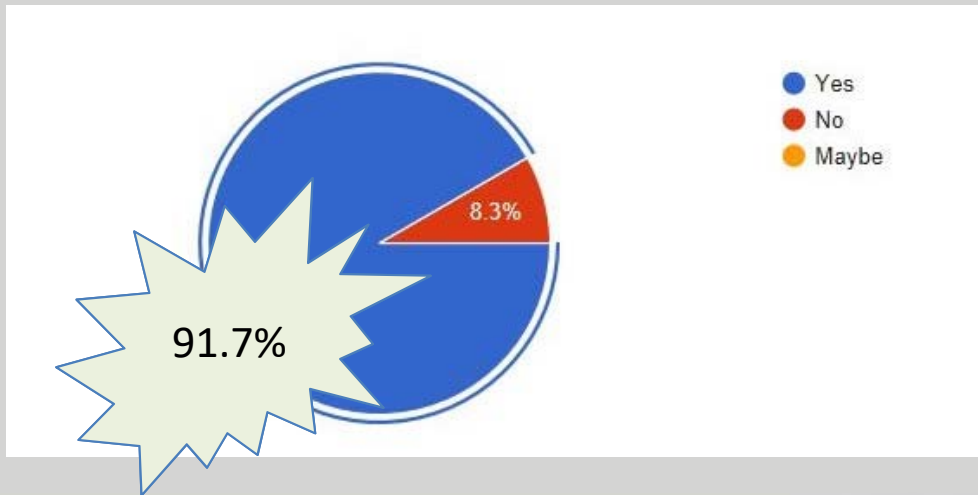
DESCIPLINES



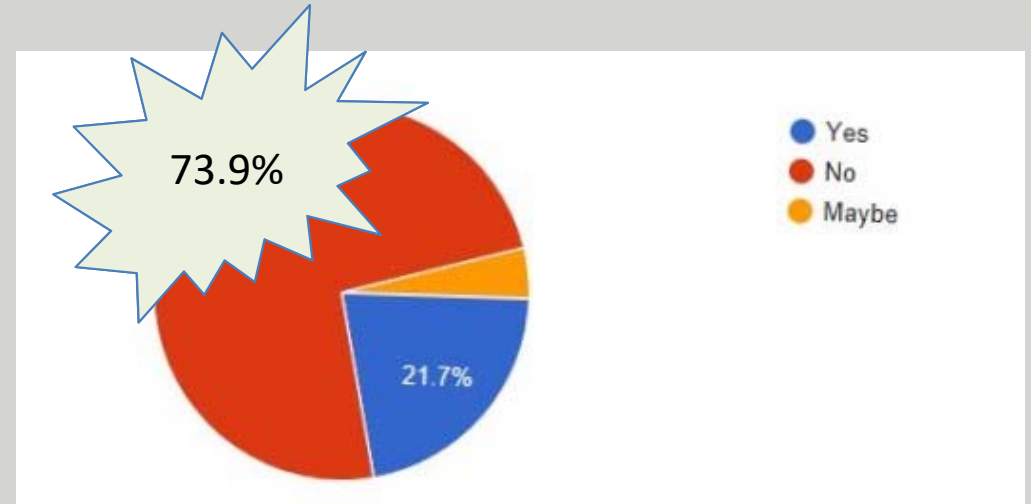


Respondents

Have you ever thought about becoming an Entrepreneur as an Engineer?



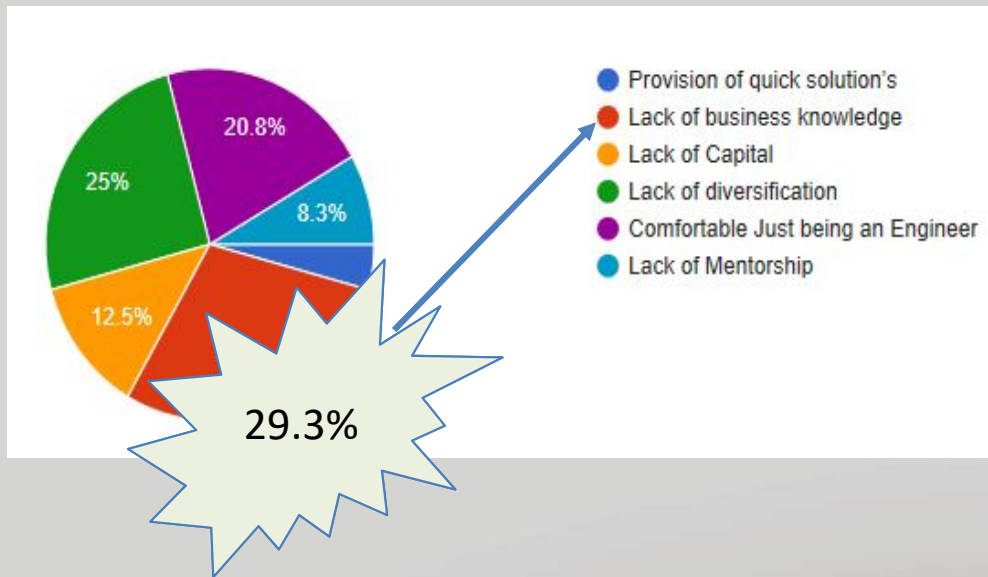
Has College or Varsity education influenced you in any way to being an Entrepreneur?



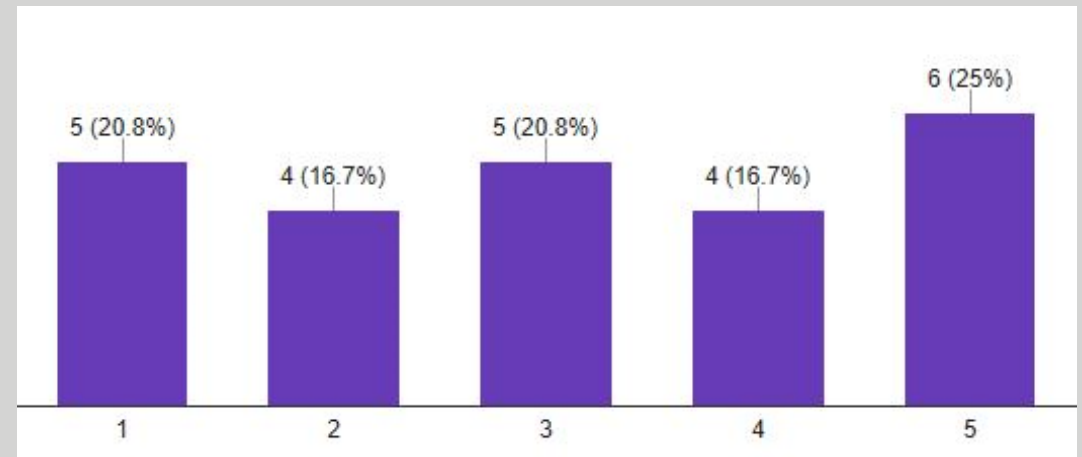


Respondents

Why are so few Engineers Entrepreneurs?



- How does the quality of Engineering Entrepreneurship compare with other professionals?



25% Very low



DISCUSSION

- Lack of;
 1. Sufficient business knowledge.
 2. Capital
 3. Diversification



UNTAPPING OUR BUSINESS POTENTIAL



What makes Engineers great Entrepreneurs?

4 reasons by Joshua Turner



1. Engineers Solve Problems

- New businesses erupt when there is a need to bring something into the market that is missing. Filling a void is perfect for someone who is capable of defining a problem.
- Engineers are trained to think logically and to follow a methodology to uncover useful solutions. *This is the basis of a successful business.*

2. Engineers Are Optimistic

- The world can be a very pessimistic place, especially when the economy is biting.
- Engineering courses teach people to persist in the face of difficulty, persevere & always entertain positive thoughts.





What makes Engineers great Entrepreneurs?



3. Engineers Can Build Trust

- An engineer will tell the truth in a blunt manner. This candor establishes trust with consumers. Trust is a quality that is not easy to establish, but an engineer should have little problem.

4. Engineers Have a Yearning For Knowledge

- When a person is not afraid to learn and gain more knowledge, growth will occur. ***Growing is a key factor involved with developing a solid business.*** Being an entrepreneur means constantly striving to uncover the most amount of knowledge possible.



And so many other factors.....



CONCLUSION

Being an Engineer and being an Entrepreneur are both about solving problems, hence Entrepreneurship should be a **NATURAL CHOICE** for Engineers. – Susan M. Mulongoti

“He was turned down for an engineering job by Toyota.” #Believe

– Soichiro Honda

EVAN CARMICHAEL



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Thank you for your attention.



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