



# Implementing a Web Based On-Demand Mentorship Platform for Young Entrepreneurs

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**Abstract:** Over 90 percent of startups fail after the first five years of kick-off in many developing economies like Nigeria due to the lack of entrepreneurial experiences, understanding of the environment and relevant insights required to handle peculiar challenges that come with running a startup company. Entrepreneurs and founders of startup companies can, therefore, improve the longevity of startups and mitigate the degree of startup failures if they can be equipped with the required knowledge and capacity. Such capacity can be harnessed from years of experiences gathered from trying, making efforts, succeeding and failing. However, entrepreneurs and founders, who are starters or lack substantial experience, may contribute to the failure rate of startups. This, nevertheless, can be addressed by taking advantage of those who have already gathered substantial experiences. These are referred to as mentorship in this study. Thus, a sound relationship between an experienced entrepreneur (mentor) and a starter entrepreneur (mentee) can enable the transfer of knowledge that mitigates the failure rate of startups. This study, therefore, seeks to explore the development of a web-based mentorship platform, where experienced entrepreneurs and young entrepreneurs meet and transfer knowledge. The platform is meant to give young entrepreneurs a leverage such that they harness the already existing experiences of experienced entrepreneurs, such as their failures, successes, methods, leadership styles and efforts. This will foster mentorship relationships, quick-finding help, and knowledge-sharing such that the failure rate of startup companies in Nigeria is reduced.

**Keywords:** Entrepreneurship; Innovation; Mentorship; Web

## 1. Introduction

Entrepreneurial education has been accepted as one of the means of empowering the youth to tackle the high rate of unemployment in Nigeria

(Oyelola, Igwe, Ajiboshin & Peluola, 2014). This has motivated the rise of startups in different industries such as fashion, information technology, foods, and drinks to just mention a few. But

the high failure rate of startups is a limitation to the efforts for a sustainable economic growth in Nigeria. Hence, it is insufficient for the youth to only go through entrepreneurial educational programmes without acquiring the necessary practical knowledge and capacity to succeed as an entrepreneur in their respective environment. As discussed by (Oluwatobi, Olurinola, Atayero & Ogundipe, 2016) the quality of a nation's human capital determines the level of entrepreneurial innovation and economic development. Therefore, capacity building in entrepreneurial activities through mentorship programmes can make the difference in effecting an upward curve in the success rate of startups. This can be validated from fact that a consistent and enduring mentorship in the outcome of a youth's endeavour has proven to be the difference between the successful or failing youth (Bruce & Bridgeland, 2014), as it seeks to engage the youth in making healthy decisions that would yield the realization of their hidden potentials. Mentoring sessions require at least a physical meeting place and an appointed time but with the advancement in Information technology, several communication tools have been utilized to make virtual mentoring possible. Mentors can now use these tools to transfer the knowledge and build capacity required by the mentees. However, with the prevalent online applications and platforms, which address differing specific challenges, there are a few platforms such as iMentor Africa that are seamlessly bespoke mentoring solutions. Moreover, the approach taken by iMentor Africa is limited to the virtual world. This study therefore seeks to propose a framework for a web-based on-demand mentorship

platform that provides the advantages of mentoring sessions taking place both online and onsite. The rest of this paper is structured as follows: Section 2 presents the literature review. In Section 3, the methodology is presented. Section 4 presents the results of this work as Section 5 discusses the results obtained while Section 6 provides recommendations and concludes the paper.

## **2. Literature Review**

Entrepreneurship is a significant element that adds to the economic development and growth of a nation. It has been widely studied in literature from different perspectives and is becoming a global phenomenon (Clarysse & Moray 2004).

Different authors have tried to define entrepreneurship yet there is no universally accepted definition. But in this paper we will consider the definition given by Chigunta (2002), that entrepreneurship is "the practical application of enterprising qualities, such as initiative, innovation, creativity and risk-taking into the work environment (either in self-employment or employment in small start-up firms), using the appropriate skills necessary for success in that environment and culture". Furthermore, Aldrich and Yang (2012), gave a definition of who an entrepreneur is by defining an entrepreneur as somebody who is endeavoring to begin his or her own particular business, or the individuals who are at present dealing with their business.

Information on and the idea of entrepreneurship as a suitable profession spurs the interest of young people to become entrepreneurs (Uddin, 2015) and as a result, new businesses are

springing up almost every day, yet the failure rates of new businesses remain very high (Jones, Macpherson & Jayawarna, 2013). This is because people are not getting the blueprints and relevant tools needed to build these businesses (Aldrich & Yang, 2012).

According to the survey carried out by Global Entrepreneurial Monitor (GEM) in Nigeria in 2013, 82% of young Nigerians were identified as potential entrepreneurs with relevant skills. However, only 40% said that they intend to start a business themselves, and 22% are actually in the process of setting up on their own. The reason for the big difference was as a result of inadequate information on the opportunities and challenges they will encounter as entrepreneurs. This discourages them from going into entrepreneurship as it is hard to start up a business in Nigeria. Other limitations discovered were financial issues and lack of relevant skills. The findings from their survey showed that there is a shortage of adequate training and advice to young entrepreneurs (Aderinto, Obamuyi, Popoola & Obileye, 2013).

A possible solution to the problems identified is the introduction of mentorship. Mentorship is an important aspect for promoting career success. Different studies have been conducted on the concept of mentorship.

According to Kram (1985) in his mentor role theory, he stated that mentors offer career development for growth within the organization, and psychosocial growth, adding to the mentee's personal and professional development.

As a way of definition, Murray (1991), defined mentorship as a "deliberate pairing of a more skilled or experienced person (mentor) with a lesser skilled or

experienced one (protégé), with the agreed-upon goal of having the lesser skilled person grow and develop specific competencies". From the definition above it shows that mentors can help young entrepreneurs to grow which could be done through guidance, counselling and providing ways on how to handle situations that are peculiar to new businesses. Therefore, the mentor-protégé relationship is an important avenue for securing required professional counsel and additionally serves as a source of moral support (Hisrich & Peters 2002).

Mentorship programmes where mentors provide guidance and support to emerging entrepreneurs have been found to enhance entrepreneurial traits (Ibrahim & Soufani, 2002). Mentors play a significant role in developing entrepreneurs (Cope & Watts, 2000), by providing focused and personalized support and can also improve an entrepreneur's capacity to perceive new business openings. In order to promote the startup of new businesses, mentorship has been found a tool for enhancing the success of these businesses (St-Jean & Tremblay, 2011; Rigg & O'Dwyer, 2012).

To further stress the importance of mentorship in entrepreneurship, a study was carried out by Lockyer and George (2012) on challenges faced by women in starting businesses and mentoring was found as an effective tool for overcoming those challenges (Lockyer & George, 2012; Smith & Beasley, 2011).

Although there are many benefits that come with mentoring, a lot of researchers have sought to determine what makes mentoring effective and

how to improve these programs for entrepreneurs (St-Jean & Audet, 2013).

The most common means to mentoring is a face to face interaction with a mentor. But with the introduction of technology, mentorship programs have been enhanced. We now have what is called virtual mentorship (E-mentorship), where the mentors and protégés can now interact with one another via the use of web tools such as email, online discussion groups, instant messaging, chats, video conferencing, skype, blogs, wikis and document sharing (Purcell, 2004).

E-mentoring offers a number of benefits such as improvement in the quality of communication and access to more than one mentor or mentee at a time thereby expanding professional networks and granting participants with various perspectives on any given situation (An & Lipscomb, 2010). It can offer a global pool of potential mentors (Bierema & Merriam, 2002; An & Lipscomb, 2010). Headlam-Wells, Gosland, & Craig (2005) also mentioned that the effects of social status, gender, age, and race are diminished as physical characteristics are less visible in electronic communication, thus rendering them less important to the overall exchange.

Therefore, the main goal of a mentor is to provide “just-in-time” support and to add value by transferring the benefits of their education, experience, skills and attitudes (Sullivan, 2000) to these young entrepreneurs to ensure the growth of start-ups and viable entrepreneurial businesses and to contribute to the economic growth of Nigeria.

**3. Methodology**

This section describes the steps taken in order to achieve the set objective of this research work.

**3.1 Requirements Elicitation**

The first step taken in the process was to gather the requirements needed to develop the system. The user requirements which are basic features required for the users of the system in order to achieve the goal of setting up meetings were collected. This was done by taking an informal survey in order to develop a minimum viable product, a proven methodology to maximize returns on risk. These requirements also cover the requirements for mentors on the platform which are part of the users. Table 3.1 and 3.2 shows the user requirements for both the entrepreneur and the mentors respectively.

Table 3.1: Requirements for Entrepreneurs

General Requirements
- Users should be able to create an account
- Users should be able to login to the platform
- Users should be able to request a meeting in real time
- Users should be able to cancel a requested meeting
- Users should be able to update their profiles
- Users should be able to view the history of their meetings with mentors
- Users should be able to send a feedback rating after a meeting
- Users should be able to see a map of mentors in real time

Table 3.2: Requirements for Mentors

Mentor Requirements
- Mentors should be able to perform all activities of the entrepreneur
- Mentors should be able to accept and reject meetings from entrepreneurs in real time
- Mentors should be able to get a feedback rating after a meeting

### 3.2 Programming

The next step after gathering the requirements required to develop the system was the implementation of the platform. The core programming language used was JavaScript which was on the NodeJS run-time environment based on its real-time support. The database used was the MySQL database and the AdonisJS framework was used in order to develop a robust platform. Git was used for version control in order to provide a sustainable workflow platform and HTML, CSS and JavaScript were used for the front-end platform with bootstrap as the CSS framework. The Google Maps API was also integrated to support map functionality.

### 3.3 Deployment

The web application was deployed using a single instance Heroku server with NodeJS and MySQL as add-ons. A website link was created and was shared to prospective users in which all were students, most of which were students of entrepreneurship.

## 4. Results

This section describes the results from this research work.

### 4.1 User Interfaces

This section contains the different user interfaces for the users of the web application.

#### 4.1.1 The Signup Page

Fig. 1 shows the signup page which contains the form filled by new users. It contains details such as the email, first name, last name and interest of the user.

The image shows a web form with two main sections: 'Account' and 'Profile'. Under 'Account', there are two input fields: 'EMAIL' with the placeholder 'name@example.com' and 'PASSWORD' with the placeholder 'At least 5 characters'. Under 'Profile', there are three input fields: 'FIRSTNAME' with the placeholder 'Your first name', 'LASTNAME' with the placeholder 'Your lastname', and 'INTEREST' which is a dropdown menu with the placeholder 'Select interest' and a downward arrow.

Fig 1: The Signup Page

### 4.1.2 Home Page

Fig. 2 shows the home page which is the primary page users see after login. Here users can perform activities such as

requesting a meeting and see a brief history of the meetings. It also contains a map to see where mentors are in real time.

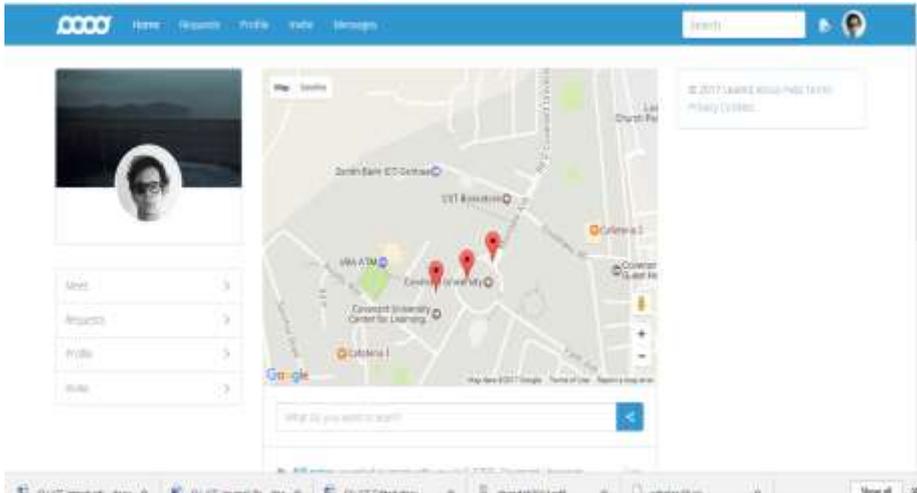


Fig. 2: The Home Page

### 4.1.3 Profile Page

Fig. 3 shows the profile page which contains the basic details of a given user

and the meetings previously held at any given time.

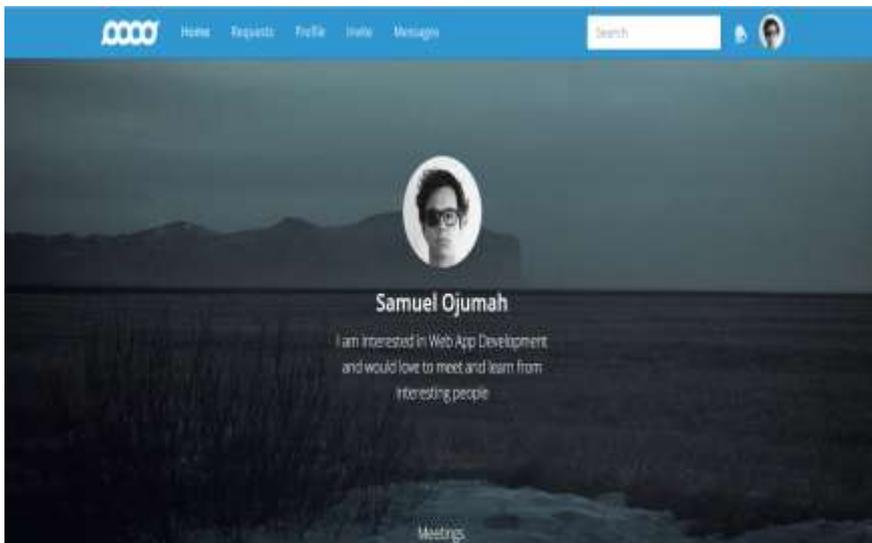


Fig. 3: The Profile Page

### 4.1.4 Requests Page

Fig. 4 shows the requests page which is a page primarily for mentors and

contains the list of entrepreneurs who have sent a request for meeting at the point where the mentor has been online.

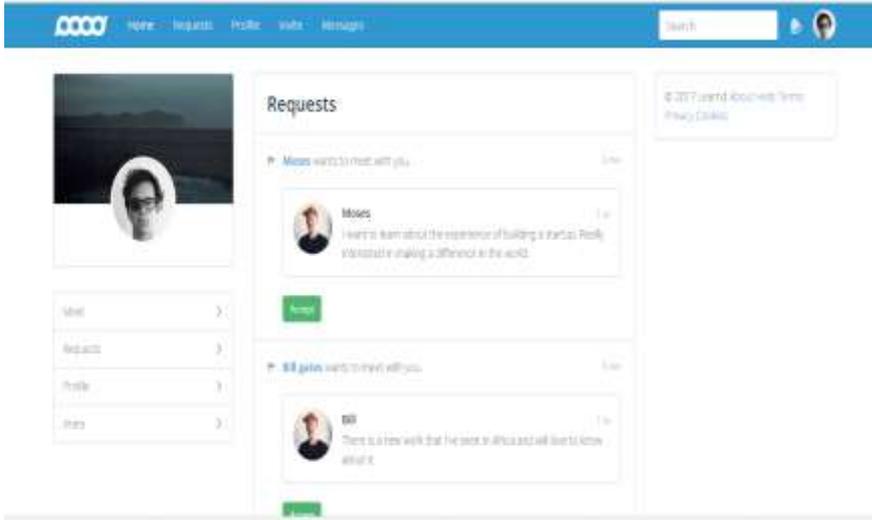


Fig. 4: The Requests Page

### 4.2 Deployment and User Growth

After deployment and sharing the link to the web application, a total of 13 users out of an expected set of 100 users registered to use the platform. Fig. 5 shows the potential and actual user share of the platform. 100 users

registered to use the platform. Fig. 5 shows the potential and actual user share of the platform. However, there have been no meetings as at the time of this writing.

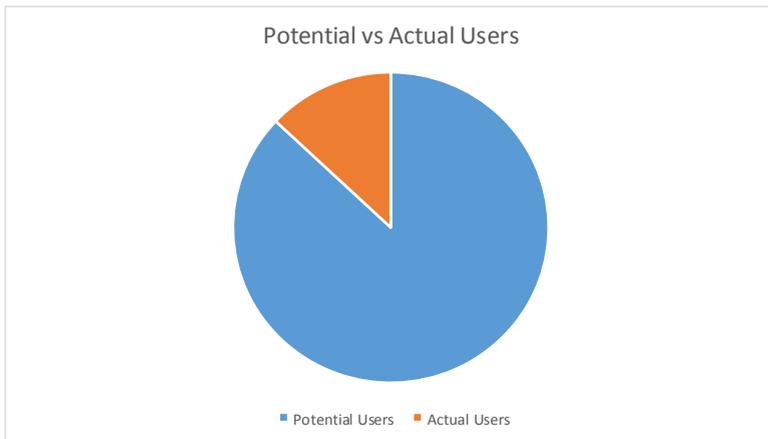


Fig. 5: Potential and Actual user share

## **5. Discussion**

### **5.1 Effects on the economy**

The user growth rate shown in the results validate the need for the platform developed in this work. By focusing on meeting growth instead of raw growth, ideas will be flow freely and more entrepreneurs could potentially be enlightened in their areas of interest. This will cause a ripple effect across the entrepreneurial landscape and lead to higher success rates of startups which will in effect facilitate the growth of the economy where the system is deployed.

### **5.2 Effects on unemployment**

With the development of more successful startups comes the employment of more workers in the given geographical area. As more users are on the platform and meetings grow, the ripple effect will see the decrease in the unemployment rates. A more enlightened startup community will lead to more successful startups being created thereby leading to better job opportunities for individuals in the region.

## **6. Recommendation and Conclusion**

### **6.1 Recommendation**

The results from this research work show that developing a platform for young entrepreneurs can serve as a base for the development of more successful startups. The development of a mobile application platform is recommended due to the ubiquity of smartphones around the world most especially among the young population which form the

basis of this work. In addition, this work recommends further work to:

- Design specific use cases where young entrepreneurs can be mentored based on several factors stemming from factors such as education, location, gender and race.
- Explore mentoring in groups in which social learning is integrated for the benefit of each member of the group.
- Develop integrations to accommodate resource sharing where materials such as books and articles can be shared and or recommended to entrepreneurs.

### **6.2 Conclusion**

In this work, an on-demand mentorship platform for young entrepreneurs being implemented as a web application is presented. The basic requirements for the system were gathered from mentors and entrepreneurs which are to form the user base. The platform was developed using the NodeJS runtime environment running alongside a MySQL database with HTML, CSS and JavaScript used on the frontend. Usage statistics described in the results show about 13 users out of the target set of 100 registered to use the platform as early adopters as at the time of this writing. These results validate the need for the platform which will help in the development of entrepreneurs and lead to the success of more startups, thus reducing the failure rates seen in the startup ecosystem and ultimately lead to a robust economy in the region where it is deployed.

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