Assessing the traits of potential entrepreneurs among technical college students
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Entrepreneurial behaviour is driven by the need for personal achievement leading to a clear productivity for becoming an entrepreneur. One approach to fostering entrepreneurship in science and technical college is to strengthen the entrepreneurial traits in the youths. The objective of the study was to investigate the entrepreneurial traits among entrepreneurs in industries, technical teachers and students in selected technical colleges in Delta and Edo states of Nigeria. Research question and hypothesis were formulated to guide the study. The population of this study was 648 while the sample was 482 selected from a proportionate sampling technique. The research design for this study is the survey. The main instrument used for data collection for the study was a 35-item non-dichotomous structured questionnaire which was subjected to face and content validity. The Cronbach alpha was used to estimate the reliability coefficient of 0.78. Analysis of covariance (ANOVA) tested at 0.05 level of significance, means and standard deviation, were used to analyse data. The respondents differ non-significantly on the traits that determine entrepreneurial potentials. The respondents agreed on 34 traits as desirable and one (working extra hours) as an undesirable trait which should be discouraged since it may lead to unwanted stressors.

Key words: Entrepreneurs, entrepreneurial potentials; college students; Nigeria.

INTRODUCTION

In the face of the serious and growing threat of unemployment in Nigeria today, the need for Nigerians to seek avenues for self-employment and self-fulfilment is now compelling. In other words, Nigerians can no longer rely on the labour market to provide hitherto job. Nigerians have to invent an alternative source of employment which is self-employment, leading to an entrepreneur. Entrepreneurship is very important to the future of Nigerian economy for improving the skills and productive capacity of citizens.

Therefore, in ensuring undergraduates’ development of personal skills and qualities which will make them gain knowledge and understanding of the way in which the economy works and reacts to market forces, entrepreneurship education and training becomes very significant. Boroffice (2008) stated that the Federal Government directed all institutions of higher learning in Nigeria to introduce the study of entrepreneurship as a compulsory course for all students, irrespective of the disciplines with effect from the 2007/2008 academic session.

The role of this education in the march towards the
development and modernisation of this nation cannot be ignored, because the knowledge gained from entrepreneurial skills is geared towards self-reliance cum wealth creation after graduation (job generation, poverty eradication and value re-orientation). Some of the skills possessed by potential entrepreneurs are:

1. Agricultural/Agro-allied Skills: Cassava/yam flour production, fishing, farming, fruit processing, garri production, poultry/piggery farming, snail-rearing etc.
2. Professional Skills: Graphic art and design, architectural practice, legal and medical practices, etc
3. Catering/Confectionery Skills: Cake making, pastry production, ice block production, catering school etc.
4. Printing and Publishing Skills: Graphic designing, diary/calendar production, magazine publishing, book binding, stickers’ production, notebook and envelope production, etc
5. Fashion and Textile Skills: Tailoring services, weaving, fashion designing, beads production, wallet production, flower vase production etc.

The populace always look at entrepreneurial programme with scorn; they prefer ‘elitist education’ that emphasizes the inculcation of knowledge and attitudes that prepares one for white collar jobs. Unfortunately, the present global economic crisis demands that only individual with entrepreneurial skills and competence can be distinguished (Moen, 1997). Therefore, the science and technical colleges should organise entrepreneurial orientation for the students and acquisition of skills and competences as a prelude to surviving in this unstable economic era. Entrepreneurship according to Adibu and Dedekuma (2006), is the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying of financial, psychic and social risks and receiving the resulting rewards monetary and personal satisfaction and independence.

Entrepreneurship education prepares people especially youths in science and technical colleges to be responsible, enterprising individuals who become entrepreneurs or entrepreneurial thinkers and who contribute to economic development. According to Etele (2007), entrepreneurship education is not just only about teaching someone to run a business; it is also about inculcating in an individual creative thinking and promoting a strong sense of self-worth and accountability. It is all about training someone to be self-employed and be able to generate employment for others.

It also seeks to provide student with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings. It can be seen as an organised, formal conveyance of entrepreneurial knowledge and skills which includes creativity, sense of initiative, innovation and risk acceptance as well as the ability to plan and manage projects in order to achieve its objectives (Aminu, 2008).

**Potential traits of entrepreneur**

Entrepreneurship education has started developing steadily in the late 20th century (Moen, 1997 and Kolvereid, 1999) but unevenly in most countries around the world and this has impact on economic and human behaviour. According to Fayolle and Lyon (2004), entrepreneurship combined with training influence both current behaviour and future intentions of science and technical students. In other words, there are great differences between students who have taken entrepreneurship courses and those who have not. Carolyn (2000), viewed entrepreneurship education in terms of the skills that can be taught and characteristics that can be engendered in students which can help them to develop new and innovative plans. Individuals are widely recognized as the primary agents of entrepreneurial activity. Since the origin of any innovation, start-up or entrepreneurial decision is traceable to a single person; one approach to fostering entrepreneurship in vocational technical education programme is to strengthen the entrepreneurial traits in the individuals (Casson, 2003).

A potential entrepreneur is one who, taking into account his judgment, would accept to bear the uncertainty of production and trade whose expected profit would be payment for this specific activity. He also creates ventures and runs a business. Potential in this study is taken to mean the ability to exercise the traits or characteristics of an entrepreneur. Kolo (2004), identified some personality trait to be:

(a) Confidence,
(b) Intelligence and
(c) Loyalty.

Nell and Badenhorst (2003), observed that personality traits such as initiative and independent spirit make individuals to find alternative ways of earning a living for themselves. These qualities are appropriate for vocational technical education students who are expected to be self-employed after graduation. When people acquire skills especially in the ability to take decision, make commitment, take risk, motivate, solve financial problems, understand family situations, be self-confident, radiate energy
and drive, generate task orientation, leadership and personal responsibilities that are very important in the life of a potential entrepreneur they would be able to establish enterprises and manage them well (Lynch, 2000 and Johnson, 2003). Individuals who manifest these qualities can assess whether a person can be a successful entrepreneur. It can be inferred that when technical students are fully equipped to exploit their personality traits, then there will be assurance that they will be self-employed after graduation. This is because, they would have become competent enough to visualize and recognize employment opportunity. These traits are the qualities a teacher should encourage in students for them to be able to start up an enterprise after graduation. Such students are expected to either take teaching as a profession or work in the industry. Therefore, an attempt was made to determine what constitute entrepreneurial potentials among science and technical students. The question this study sought to answer is: what are the characteristics of potential entrepreneur that could stimulate technical students into job creation? The following research question was used to guide the study:

What are the perceptions of entrepreneurs, technical teachers and students on the traits that determine potential entrepreneur?

The following null hypothesis was tested at 0.05 level of statistical significance:

HO1: There is no significant difference in the mean responses of entrepreneurs, technical teachers and students on the traits that determine potential entrepreneur.

MATERIALS AND METHODS

The population of this study was 648 which comprised 92 entrepreneurs in industries: 240 technical teachers and 316 final year students in four selected technical colleges in Delta and Edo States of Nigeria. They are:

Sapele Technical College Sapele, Delta state
Government Technical College Ughelli, Delta state
Benin Technical College Benin City, Edo state
Government Technical College Igarra, Edo state

The proportionate sampling technique was used for this study to select 75% from each of the three groups, making up of a sample of 482 which comprised 69 entrepreneurs, 180 teachers and 273 final year students. The research design for this study is the survey. The main instrument used for data collection for the study was a 35-item structured questionnaire designed by the researchers with a five-point Likert scale of Very desirable, Desirable, Fairly desirable, Undesirable and Very undesirable with scores of 5,4,3,2 and 1 respectively.

The instrument was subjected to face and content validity by six experts (4 lecturers from vocational and technical education department and two entrepreneurs). The Cronbach alpha was used to estimate the reliability coefficient. The data for the computation of the reliability coefficient was obtained after a pilot test that was conducted on the questionnaire. The coefficient alpha analysis yielded reliability of internal consistency of 0.78. A paper questionnaire was used to collect data which was administered to the respondents by the researcher with the help of research assistants. To ensure a high rate of return of the questionnaire by the respondents, the assistants were used for call back. However, out of 273 questionnaire that were administered to teachers, 271(99%) were retrieved as properly completed while a 100% rate was returned for entrepreneurs and students.

Analysis of covariance (ANOVA) tested at 0.05 level of significance, means and standard deviation, were used to analysed data. For this study, any item with a mean response of 2.5 and above was accepted as a desirable trait while responses below 2.5 were considered as undesirable.

RESULTS

The presentation of the results of the analysis of the data collected follows the order of the research question and hypothesis.

Research Question: What are the perceptions of entrepreneurs, technical teachers and students on the traits that determine potential entrepreneur?

Table 1, shows that item 18 with the lowest grand mean of 2.23 was below the decision point of 2.50. Thus, the ability to work extra hours was always considered by the respondents as an undesirable character; is not a determinant of entrepreneurial potentials. However, the remaining 34 items were rated as desirable.

Hypothesis: HO1: There is no significant difference in the mean responses of entrepreneurs, technical teachers and students on the traits that determine potential entrepreneur (p<0.05).

Table 2, showed that the F- ratio is .956 and not significant at p = .388. The null hypothesis was therefore retained. This indicated a non-significant difference in the mean responses of the respondents which revealed that all the subjects agreed that the 34 traits are essential determinants for potential entrepreneurs.

DISCUSSION

The findings of this study with regards to the traits that determine potential entrepreneur indicate that 34 personality traits were rated as very desirable. This finding conforms to the assertion of Carre and Thurik (2002), who confirmed that entrepreneurship is essentially a behavioural characteristic of a person.

Entrepreneurs and potential entrepreneurs like science and technology students may exhibit it only during a certain phase of their career or with reference to certain activities. However, entrepreneurs, technical teachers
**Table 1. Mean response of entrepreneurs, technical teachers and students on the traits that determine potential entrepreneur**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Traits that indicate entrepreneurial potentials</th>
<th>$\bar{X}_E$</th>
<th>$\bar{X}_T$</th>
<th>$\bar{X}_S$</th>
<th>$\bar{X}_{\text{Grand}}$</th>
<th>S</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Be innovative</td>
<td>4.46</td>
<td>4.36</td>
<td>4.23</td>
<td>4.35</td>
<td>0.76</td>
<td>Desirable</td>
</tr>
<tr>
<td>2</td>
<td>Take reasonable risks</td>
<td>3.84</td>
<td>3.95</td>
<td>3.62</td>
<td>3.80</td>
<td>0.84</td>
<td>Desirable</td>
</tr>
<tr>
<td>3</td>
<td>Demand for efficiency and quality</td>
<td>4.38</td>
<td>4.32</td>
<td>4.16</td>
<td>4.29</td>
<td>0.76</td>
<td>Desirable</td>
</tr>
<tr>
<td>4</td>
<td>Set appropriate goals for enterprise</td>
<td>4.38</td>
<td>4.35</td>
<td>4.31</td>
<td>4.35</td>
<td>0.77</td>
<td>Desirable</td>
</tr>
<tr>
<td>5</td>
<td>Be persistent in pursuing set objectives</td>
<td>4.18</td>
<td>4.29</td>
<td>4.04</td>
<td>4.17</td>
<td>0.86</td>
<td>Desirable</td>
</tr>
<tr>
<td>6</td>
<td>Be persuasive and networking</td>
<td>4.04</td>
<td>4.16</td>
<td>4.05</td>
<td>4.08</td>
<td>0.84</td>
<td>Desirable</td>
</tr>
<tr>
<td>7</td>
<td>Become knowledgeable</td>
<td>4.46</td>
<td>4.36</td>
<td>4.23</td>
<td>4.35</td>
<td>0.76</td>
<td>Desirable</td>
</tr>
<tr>
<td>8</td>
<td>Take charge in any business venture</td>
<td>3.94</td>
<td>3.92</td>
<td>3.62</td>
<td>3.80</td>
<td>1.03</td>
<td>Desirable</td>
</tr>
<tr>
<td>9</td>
<td>Get along well with others</td>
<td>4.31</td>
<td>4.19</td>
<td>4.11</td>
<td>4.20</td>
<td>0.82</td>
<td>Desirable</td>
</tr>
<tr>
<td>10</td>
<td>Take decisions promptly</td>
<td>4.12</td>
<td>4.11</td>
<td>4.14</td>
<td>4.12</td>
<td>0.92</td>
<td>Desirable</td>
</tr>
<tr>
<td>11</td>
<td>Accept responsibility for one’s actions</td>
<td>3.94</td>
<td>4.17</td>
<td>3.84</td>
<td>3.98</td>
<td>0.97</td>
<td>Desirable</td>
</tr>
<tr>
<td>12</td>
<td>Cultivate competitive spirit</td>
<td>4.12</td>
<td>4.25</td>
<td>3.88</td>
<td>4.08</td>
<td>0.96</td>
<td>Desirable</td>
</tr>
<tr>
<td>13</td>
<td>Accept responsibility for success or failure</td>
<td>4.26</td>
<td>4.23</td>
<td>4.04</td>
<td>4.18</td>
<td>0.87</td>
<td>Desirable</td>
</tr>
<tr>
<td>14</td>
<td>Demonstrate self confidence</td>
<td>4.22</td>
<td>4.42</td>
<td>4.29</td>
<td>4.31</td>
<td>0.75</td>
<td>Desirable</td>
</tr>
<tr>
<td>15</td>
<td>Be able to deal with negative trends loses</td>
<td>4.22</td>
<td>4.19</td>
<td>3.96</td>
<td>4.12</td>
<td>0.82</td>
<td>Desirable</td>
</tr>
<tr>
<td>16</td>
<td>Adapt to the changing situations</td>
<td>4.32</td>
<td>4.26</td>
<td>4.06</td>
<td>4.21</td>
<td>0.84</td>
<td>Desirable</td>
</tr>
<tr>
<td>17</td>
<td>Get to know your customers</td>
<td>4.46</td>
<td>4.36</td>
<td>4.23</td>
<td>4.35</td>
<td>0.76</td>
<td>Desirable</td>
</tr>
<tr>
<td>18</td>
<td>Work extra hours always</td>
<td>2.10</td>
<td>2.22</td>
<td>2.36</td>
<td>2.23</td>
<td>0.88</td>
<td>Undesirable</td>
</tr>
<tr>
<td>19</td>
<td>Save profit for expansion</td>
<td>4.31</td>
<td>4.26</td>
<td>4.45</td>
<td>4.34</td>
<td>0.82</td>
<td>Desirable</td>
</tr>
<tr>
<td>20</td>
<td>Take independent actions</td>
<td>3.91</td>
<td>3.19</td>
<td>4.03</td>
<td>3.95</td>
<td>0.98</td>
<td>Desirable</td>
</tr>
<tr>
<td>21</td>
<td>Demonstrate the drive to achieve</td>
<td>3.99</td>
<td>4.21</td>
<td>4.17</td>
<td>4.12</td>
<td>0.87</td>
<td>Desirable</td>
</tr>
<tr>
<td>22</td>
<td>Motivate others to achieve</td>
<td>4.25</td>
<td>4.28</td>
<td>4.27</td>
<td>4.27</td>
<td>0.87</td>
<td>Desirable</td>
</tr>
<tr>
<td>23</td>
<td>Demonstrate will power and self discipline</td>
<td>4.29</td>
<td>4.19</td>
<td>4.13</td>
<td>4.20</td>
<td>0.84</td>
<td>Desirable</td>
</tr>
<tr>
<td>24</td>
<td>Ability to adapt and change to a new environment</td>
<td>4.22</td>
<td>4.32</td>
<td>4.07</td>
<td>4.20</td>
<td>0.81</td>
<td>Desirable</td>
</tr>
<tr>
<td>25</td>
<td>Maintain high level of integrity</td>
<td>4.41</td>
<td>4.43</td>
<td>4.25</td>
<td>4.36</td>
<td>0.81</td>
<td>Desirable</td>
</tr>
<tr>
<td>26</td>
<td>Be able to work under pressure</td>
<td>4.21</td>
<td>4.21</td>
<td>3.90</td>
<td>4.11</td>
<td>0.97</td>
<td>Desirable</td>
</tr>
<tr>
<td>27</td>
<td>Become future oriented</td>
<td>4.24</td>
<td>4.31</td>
<td>4.20</td>
<td>4.25</td>
<td>0.81</td>
<td>Desirable</td>
</tr>
<tr>
<td>28</td>
<td>Be hard working</td>
<td>4.50</td>
<td>4.46</td>
<td>4.31</td>
<td>4.42</td>
<td>0.76</td>
<td>Desirable</td>
</tr>
<tr>
<td>29</td>
<td>Accept and face challenges</td>
<td>4.40</td>
<td>4.42</td>
<td>4.18</td>
<td>4.33</td>
<td>0.80</td>
<td>Desirable</td>
</tr>
<tr>
<td>30</td>
<td>Judge the abilities and skills of others</td>
<td>4.18</td>
<td>4.19</td>
<td>3.95</td>
<td>4.11</td>
<td>0.90</td>
<td>Desirable</td>
</tr>
<tr>
<td>31</td>
<td>Demonstrate imaginative and creative ideas</td>
<td>4.37</td>
<td>4.19</td>
<td>4.19</td>
<td>4.25</td>
<td>0.86</td>
<td>Desirable</td>
</tr>
<tr>
<td>32</td>
<td>Recognize business opportunities</td>
<td>4.38</td>
<td>4.44</td>
<td>4.53</td>
<td>4.45</td>
<td>0.65</td>
<td>Desirable</td>
</tr>
<tr>
<td>33</td>
<td>Be able to initiate ideas</td>
<td>4.34</td>
<td>4.38</td>
<td>4.39</td>
<td>4.37</td>
<td>0.74</td>
<td>Desirable</td>
</tr>
<tr>
<td>34</td>
<td>Market yourself and the business</td>
<td>4.22</td>
<td>4.32</td>
<td>4.07</td>
<td>4.20</td>
<td>0.81</td>
<td>Desirable</td>
</tr>
<tr>
<td>35</td>
<td>Demonstrate resourcefulness in business</td>
<td>4.22</td>
<td>4.32</td>
<td>4.07</td>
<td>4.20</td>
<td>0.81</td>
<td>Desirable</td>
</tr>
</tbody>
</table>

**Table 2. Analysis of variance result comparing responses of entrepreneurs, technical teachers and students on the traits that determine potential entrepreneur (One-way ANOVA mean scores).**

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>.287</td>
<td>2</td>
<td>.143</td>
<td>.956</td>
</tr>
<tr>
<td>Within groups</td>
<td>15.30</td>
<td>102</td>
<td>.150</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15.586</td>
<td>104</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

and students themselves identified working extra hours as an undesirable trait. Perhaps this is to be expected since some practicing entrepreneurs who worked extra hours developed early symptoms of stressors due to hassles, which lends credence to the work of Obi and Obi (2007).

The non-significant difference in the mean responses of the respondents on the traits that determine potential
entrepreneur as shown in the findings of the hypothesis is in-consistent with Kolo (2004), who said that individual differences accounts for personality traits such as confidence, intelligence and loyalty. These traits are the qualities a teacher should stimulate in individual students for each to be able to start up an enterprise after graduation. The following are the major findings of the study:

Thirty-four traits considered as desirable for entrepreneurial potentials are;

1. Be able to initiate ideas
2. Demand for efficiency and quality
3. Set appropriate goals for enterprise
4. Be persistent in pursuing set objectives
5. Take change in any business venture
6. Accept responsibility for one’s actions
7. Accept full responsibility for success or failure
8. Be able to deal with negative trends loses
9. Be innovative (do things in new ways)
10. Judge the abilities and skills of others
11. Demonstrate will power and self discipline
12. Demonstrate resourcefulness in business
13. Maintain high level of integrity
14. Demonstrate imaginative and creative ideas
15. Recognize business opportunities
16. Get along well with others
17. Be knowledgeable
18. Take decisions promptly
19. Cultivate competitive spirit
20. Demonstrate self confidence
21. Be persuasive and networking
22. Adapt to the changing situations
23. Save profit for expansion
24. Accept and face challenges
25. Be hard working
26. Become future oriented
27. Be able to work under pressure
28. Motivate others to achieve
29. Take independent actions
30. Demonstrate the drive to achieve
31. Take reasonable risks
32. Get to know your customers
33. Market yourself and the business
34. Adapt and change to a new environment

Ability to work extra hours was considered as an undesirable trait.

There was no significant difference between entrepreneurs, technical teachers and students on the traits that were considered as desirable for potential entrepreneurs.

CONCLUSIONS

Successful entrepreneurs manage their business with energy, tenacity and clarity of vision. They share the above-mentioned attributes. Individuals should therefore, evaluate themselves on each of these entrepreneur traits in an objective manner. This will help them to analyse their shortcomings and build upon their strengths.

Science and technical college students have a wide range of traits to be explored. It will require a careful and diligent teacher to stimulate students to bring out these traits. The 34 traits of potential entrepreneur identified in this study are by no means exhaustive. In order to generate additional traits, this study should be replicated. The ability to work extra hours was considered unacceptable in this study. However, this finding does not portray the inability to work hard by entrepreneurs and potential entrepreneurs.

RECOMMENDATIONS

The following recommendations were made based on the findings of the study:

Science and technical college teachers should encourage and stimulate students to exude the traits that makes a person potential entrepreneur.

Potential entrepreneur should be discouraged to work extra hours which may lead to unwanted stressors.

Adequate publicity on the importance of acquiring these entrepreneurial traits should be made to create awareness for students of science and technical colleges for sustainable human development.

Conflict of Interests

The author(s) have not declared any conflict of interests.

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