

Assessing the Need for Entrepreneurial Training at the Higher Educational Institutions in Ghana

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Abstract

Collaboration among educational institutions, governments, and industries has made significant economic impact in many countries. Keys to success in the collaboration have been environments provided by the governments that are conducive to entrepreneurship, and the industries' contribution to experiential learning. In 2003, Ghana responding to the United Nations Millennium Development Goals (MDGs) Agenda for Poverty Reduction, had in her strategic plan the intent to introduce entrepreneurial training as an option for all courses of study at the higher educational institutions. This mixed-method study compared the entrepreneurship traits of students who had taken an entrepreneurship course and those who had not. The bottom-line idea was to explore the job creation potential or ability among the university students in Ghana – a possible solution to youth unemployment and poverty. The study showed that the strategy of offering entrepreneurial training at the higher educational institutions in Ghana is worth implementing and supporting it. In fact, it is worthy to be emulated by other countries in the sub region. Countries seeking economic growth and poverty reduction in the 21st century should consider including entrepreneurial training to develop the creative and innovative skills of their youth.

Keywords: Entrepreneurship training, poverty reduction, unemployment in Ghana, human capital, triple helix.

1.0 Introduction

Entrepreneurial orientation coupled with positive perception has proven to increase the potential for job creation in some countries. Mueller (2004) indicated that “as the prevalence of entrepreneurial traits within a given country increases, the number of potential entrepreneurs and subsequent new venture creation in that country will also increase” (p. 9). Entrepreneurial traits were not uniform across countries (Mueller, 2004). However, in countries where entrepreneurial orientations were common among the population, “potential entrepreneurs” and “new venture formation” were to be expected (Mueller & Thomas, 2000, p. 18). Mueller & Thomas further explained that business education provides not only tools of business such as accounting, marketing, and finance but also develops students skills for “self-management and coping with adversity and uncertainty” (p. 17). van Eeden, Louw and

Venter (2005) referred to education as the “supply” of entrepreneurs (p. 27). Therefore, entrepreneurship education, through innovation, is necessary for economic growth. The entrepreneurship potential of youth promises to be a great tool in the attempt to eliminate abject poverty in the world. If the youth are innovative and can create jobs, then a greater economic security becomes available to them, thereby reducing their search for better or more promising situations through migration.

In recent times, governments and organizations have implemented policies that have fostered entrepreneurship in order to promote economic growth. In the 1990s, the United Nations (UN), through the United Nations Development Program (UNDP) and the International Labor Organization (ILO), embarked on entrepreneurship education programs in some developing countries to promote an “enterprise culture” at their universities (Nelson & Johnson, 1997, p. 13). Countries such as Kenya, Uganda, and Botswana are African nations that have benefited from the UN's entrepreneurship education project (Republic of Kenya, 1990).

According to Ngatia (2004), the ILO conducted a study on Kenya's small enterprise sector (SES) in 1972. The findings of the study generated worldwide attention on a country saddled with a rapid population growth and a declining employment rate. The Kenyan government encouraged the informal sector while committing itself to a 7.5% entrepreneurial opportunities increment (Government of Kenya, 1974). Among the strategies was the vocationalization and diversification of school curricula with the intent to increase self-employment in the informal sector (King, 1996; Ngatia, 2004). With the introduction of UN's initiative for entrepreneurship education at the higher educational institutions in 1990, the informal sector saw a great expansion. By 1993, a micro and small enterprise (MSEs) baseline survey indicated that 910,000 MSEs employed 2 million people in Kenya (Mullei & Bokea, 1999; Ngatia, 2004).

The International Labor Organization's evaluation of the Kenya entrepreneurship education project in 1994 drew attention to cost effectiveness per trainee, since the course was delivered in Kenya rather than abroad. It noted that candidates in the entrepreneurship program had the opportunity to “play a key role in the broad implementation of the entrepreneurship education program while students in the process of earning their Master's degree” (Huntington, Manu, & Dena, 1992, p. 27). Nelson and Johnson (1997) listed 78 case studies that had been prepared as supplementary teaching materials which highlighted the challenges confronted by the

small enterprise entrepreneurs and 34 success stories of indigenous Kenyan entrepreneurs. Nelson and Johnson (1997) were involved with the Kenya entrepreneurship education program. They recommended that developers of similar programs consider inclusion of work experience in small-scale enterprises, integration of role models and trainee participation in idea generation, and business planning for a competitive “enterprise culture” (p. 13). Nelson and Johnson (1997) explained that the program in Kenya was part of a general education of young people for “the world-of-work” (p. 13). They concluded that having entrepreneurship education as an integral component of the curricula in schools tends to produce leaders in societies that have business knowledge. Bloom, Canning, and Chan (2005) reported a correlation between the availability of higher education and entrepreneurship, showing how tertiary education narrows the gap between economies in terms of technological advancement.

1.1 Ghana

Ghana is among the countries in Sub-Saharan Africa that are struggling with unemployment problems. There are indications that these countries may eventually be able to use entrepreneurship education to equip their students for job creation. Some initiatives for the introduction of entrepreneurship education in the higher educational institutions in Ghana have been demonstrated.

1.1.1 Historical Background

During the 15th century globalization, the world trade involved many countries (Friedman, 2005). Europeans found new sea routes to Asia for trading, America was discovered, and Sub-Saharan African countries were also involved in trading partnerships. The first Europeans to arrive at the coast of present-day Ghana were the Portuguese in 1471. The initial trading in gold and other minerals led to the transatlantic slave trade. After a century of monopoly in trading, the Dutch arrived. In 1642, the Dutch fought the Portuguese and took over their castles and forts. The

British were the third to arrive and named the country the Gold Coast. The Danes and Swedes settled in the Gold Coast later. Meanwhile, the French and Germans were in the neighboring countries. Togo was a territory for both the French and the Germans. However, only the French had the Ivory Coast and Upper Volta, now Burkina Faso, as their territories. In the early 1800s when slavery was abolished, the British made the Gold Coast a colony and ruled the country until 1957 when the Gold Coast obtained its independence under Kwame Nkrumah with a new country name, Ghana. At Ghana’s independence, the German territory in Togo also became part of Ghana.

Ghana became a republic in 1960, but the first president was overthrown in 1966. Until 1992, Ghana had military interventions in political leadership. Ghana’s return to constitutional rule since 1992 has seen economic growth. According to the World Bank (2007), Ghana managed to reduce the share of the population living in poverty significantly, from about 52% in 1991/2 to 28.5% in 2005/6. In 2000, Ghana had a democratic change of government and another in 2008.

Ghana now has an unemployment rate of 11%. However, it is endowed with many higher educational institutions (Central Intelligence Agency, 2012). At the lower levels of education in Ghana, specifically at the pre-secondary level, the Technical Vocational Education Training program (TVET) is emphasized. This academic program ends with the typical vocational and technical institutions. An introduction of entrepreneurship education within a vocational education or high school curriculum in most African economies is driven by the notion that “an entrepreneurship culture should begin at home, and then proceed to higher education and training institutions. When pupils are oriented into entrepreneurship from an early age, it becomes easier when they have their own entrepreneurial ventures” (Landzani & Vuuren, 2002, p. 150).

1.1.2 Higher Education in Ghana

According to Easterly and Levine (1995), education has an impact on economic growth. However, education in Africa compared to the rest of the world shows a great deficit. Easterly and Levine (1995) stated that “Average school attainment is about 50 percent higher in other developing countries. Thus, poor policy indicators and low human capital, as measured by school attainment, link closely with growth in Africa” (p. 8). According to Teffera and Altbach (2004), higher education development in Africa is “as old as the pyramids of Egypt, the obelisks of Ethiopia, and the kingdom of Timbuktu” (p. 3). In Sub-Saharan Africa, Sankore University was founded in the 12th century in Timbuktu, Mali (Lulat, 2003). Meanwhile, in Ghana the importance of higher education was only recognized between 1934 and 1941 (Emudong, 1997). The Asquith Commission of 1945 sought cooperation between the universities in the United Kingdom and higher education institutions in their African colonies, which led to the establishment of universities in Sub-Saharan African countries such as Ghana (Daniel, 1996; Teffera & Altbach, 2003).

In 1948, the University College of Gold Coast was founded by the Elliot Commission and gained full university status in 1961 as the University of Ghana (Daniel, 1996; Leney, 2003). By 2008, the World Bank reported that

Ghana had seven public universities, 28 private universities, 10 polytechnics, and 38 colleges of

education. In Ghana, the body that is responsible for pretertiary education, the largest operational unit for education is the Ghana Education Service (GES). The GES takes up at least 80% of the country's budget for education (Gondwe & Walenkamp, 2011). However, the National Council for Tertiary Education (NCTE) is responsible for all public higher education institutions of university or non-university status. The universities are governed by academic boards or university councils through a vice chancellor.

Bloom, Canning, and Chan (2005) indicated that in the past, African governments in collaboration with the World

Bank focused solely on basic education at the neglect of tertiary education. For example, at the Dakar summit on Education for All in 2000, only primary education was advocated as the driver of social welfare. Part of the neglect has been attributed to the lack of empirical evidence that supported the impact of higher education on economic growth. However, the recent situation of knowledge economies, such as India, has shown the contrary to be true. A global shift emphasis on higher education occurred in Africa after the World Bank's publication on *Knowledge for Development* in 1999. African countries responded in various ways. In Ghana, there was a 5-year collaboration between the World Bank and the government, aimed at improving the quality of tertiary education. Through this collaboration, a provision of the Teaching and Learning Innovation Fund became available to the universities and the polytechnics in 2004 (Bloom et al., 2005).

1.1.3 Unemployment in Ghana

Ghana has seen a rise in urban migration in recent times. The dream of most young people in Ghana has been to travel abroad or to go to one of the cities in Ghana in search of jobs. Awumbila et al (2008) referred to this internal and international migration as "new migration dynamics" in Ghana. Ghana has a land mass of 238,533 sq km and a population of 24,253,431 (World Health Organization, 2012). The population growth is 2.7%, and 41.3% of the population is under the age of 15 (World Bank, 2008). The agricultural sector employs about 60% of the labor force and contributes 40% to the gross domestic product (GDP). The urban population was 45.8% (Fox & Sekkel, 2006).

The figure stood at 51% 3 years later (United Nations Children's Fund, 2009). Ghana had a higher wage and salary employment in 1980 than in 1990 (Dabalen, Mengistae, Nielsen, & Verner, 2002). In the 1990s, Ghana's civil service decreased by 40% (Larbi, 1999). The Ghana government share in total employment declined from 8% in 1987–1988 to 5.9% in 1998–1999 (Teal, 2005).

The experience of poverty is more pronounced in rural areas than in the urban areas, and in recent times a particular feature of note is the migration of young women from the northern part of the country to the south to work as porters, carrying merchandised goods by shoppers from one terminal to the other at shops and open markets for little amounts of money (Awumbila & Ardayfio-Schandorf, 2008). The number of unemployed graduates also keeps rising in Ghana. The theme for Ghana's 2011 budget had the heading *Stimulating Growth for Development and Job Creation* (Ghana Web, 2011, p. 1). When the 2012 budget was read with the theme *Infrastructural Development for Accelerated Growth and Job Creation*, again job creation had been mentioned. The Unemployed Graduates Association of Ghana (UGAG) noted it as a possible "recipe for social unrest if not immediately checked" (Ghana Web, 2011, p. 1).

1.1.4 Entrepreneurship Interventions in Ghana

According to Ali-Dinar (2009), the Afrobarometer survey on Ghana showed a hike in terms of job creation, referencing the government's introduction of the National Youth Employment Program (NYEP) in 2006. The goal of the NYEP was to empower the Ghanaian youth between the ages of 18–35 so they could add positively to the socioeconomic and sustainable development in the nation. Moreover, in 2002, Ghana benefited from a bilateral program launched and funded by the Netherlands government, known as the Netherlands Program for Institutional Strengthening of Post-Secondary Education and Training Capacity (NPT). The aim of the program was to contribute to the strengthening of institutional capacity of selected developing countries, including Ghana. According to

Gondwe and Walenkamp (2011), the NPT intervention was carried out country-wide and all 10 polytechnics in Ghana were involved. The program ensured that all the students who chose to participate engaged in industrial internships.

Following the NPT program, the Netherlands Ministry of Foreign Affairs initiated the Netherlands Initiative for Capacity development in Higher Education (NICHE) program. The program aimed at a continuation of capacity building in postsecondary education, and was operational over the period 2009–2013. A summary of Ghana's 2003 strategy for poverty reduction included the introduction of entrepreneurial training in the higher educational institutions in Ghana (Ghana Poverty Reduction Strategy, 2003). Meanwhile, the NPT pilot program with the polytechnics in Ghana proved that local industries and polytechnics had willingness to engage in collaboration with the government for entrepreneurship and economic growth.

2.0 Literature Review and Theoretical Framework

The oldest definition of entrepreneurship is attributed to Knight in 1921. According to Dollinger (1999), Knight

described entrepreneurship as “profits from bearing uncertainty and risk” (p. 12). Dollinger explained the term risk as “the variability of outcomes (or returns). If there is no risk, the returns are certain. However, ‘uncertainty’ refers to entrepreneurs’ estimates of how the world works, their understanding of the causes and effects in the environment” (p. 5).

In recent times, Kuratko and Hodgetts (2004) defined entrepreneurship as follows: a dynamic process of vision,

change, and creation. It requires an application of energy and passion towards the creation and implementation of new ideas and creative solutions. Essential ingredients include the willingness to take calculated risks in terms of time, equity, or career; the ability to formulate an effective venture team; the creative skill to marshal needed resources; and fundamental skill of building a strong business plan; and finally, the vision to recognize opportunity where others see chaos, contradiction, and confusion. (p. 30)

In 1934, Schumpeter advocated that entrepreneurship plays a great role in economic development. This is because entrepreneurs are able to innovate in order to transform commercial products through processes that add economic value. That transformation is only made possible when entrepreneurship plays the role of “knowledge filter” (Acs, Audretsch, Braunerhjelm, & Carlsson, 2004).

The chronology of entrepreneurship education began in the United States in 1947 when the Harvard Business School offered the first entrepreneurship course titled Management of New Enterprise. In 1950, the first trade book was also published in the United States (Katz, 2003; Lasser, 1950).

In Europe, the United Kingdom and France introduced entrepreneurship education in the 1970s. Now, their entrepreneurship courses exist mostly as electives. At the undergraduate level, 73% of the entrepreneurship courses are taught as electives; at the postgraduate level, 69% of all the entrepreneurship courses are electives (Niyonkuru, 2005; Wilson, 2004). In China, business schools offer business venturing programs and focus on entrepreneurship modules (Hongbin, Meng, Wang, & Zhou, 2008). Latin American countries have entrepreneurship programs, especially in Brazil where a technological innovation law was passed in 2004 to encourage strategic partnerships between universities, technological institutes, and companies.

Kenya is one of the countries in Africa where sustainable entrepreneurship education was implemented through the initiatives of the UN (Republic of Kenya, 1990). The University of Illinois at Urbana-Champaign was subcontracted for the successful implementation of the education program at the universities in Kenya (Huntington, Manu, & Dena, 1992). According to Lumpkin and Dess (1996), entrepreneurial orientation comprises five dimensions: “autonomy, innovativeness, risk-taking, pro-activeness and competitive aggressiveness” (p. 137). However, other scholars have indicated psychological components that include the need for achievement, internal locus of control, and tolerance for ambiguity. These components have been shown to relate to the level of education. Education equips individuals with experience, persistence, and networking. Entrepreneurship education plays the role of psychological and experiential orientation that instills the power of innovation.

Many countries have benefited from the use of entrepreneurship education, starting from the mid-1900s. However, it has been noted that government policy is the greatest factor that facilitates the use of such programs to promote economic growth. The UN also experimented with entrepreneurship education in some African countries, including Kenya, Uganda, and Botswana.

Davidsson (1995) indicated that a correlation exists between business education and an entrepreneur’s ability to start and manage a business. In effect, when individuals are equipped with the appropriate education, they tend to become more entrepreneurial. According to Elango, Fried, Hisrich, and Polonchek (1995), human capital and business skills have great bearing on performance. Therefore, the Human Capital theory was considered in this study. According to Minniti (2008), the success of entrepreneurship depends on the institutional environment, which is shaped by government policy. Factors such as labor cost, commercialization of invention, foreign exchange rates, and property rights are all dependent on government policies. Thus, the Triple Helix, a theory that focuses on the relations between university, industry, and government was also considered in this study.

2.1 Human Capital Theory

The Human Capital theory proposed by Mincer (1958) and Becker (1975) is complimentary to Smiths’ (1937) economic perspective on social action, which highlights the role of commerce and manufacturers in the promotion of political stability in nations. The Human Capital theory of Mincer (1958) and Becker (1975) stipulated that incomes vary directly with investment in education and training. Making reference to industry, race, gender, or city, Mincer (1958) wrote that “the greater the average amount of training in the group, the greater the inequality in its income distribution” (p. 300). Human Capital investment is meant to create skills in the labor force that are able to propel economic growth. To meet the demands of fostering economic development, countries establish higher educational institutions that serve the populace by occupying a central

position as providers of education in shaping the skills that are necessary for developing regional and local economies (Gunasekara, 2004; Organisation for Economic Cooperation and Development, 1999; Premus, Sanders, & Jain, 2003).

Historically, higher educational institutions have contributed to economic and human capital development. The institutions have played the role as a primary provider of formal training and development in order to increase efficiency in economic development models. According to Peters and Besley (2006), “education is the principal means of developing highly skilled and flexible human capital for effective competition in global markets” (p. 64). Additionally, Peters and Besley indicated that higher institutions all over the world are being encouraged to promote new skills in entrepreneurship and involvement in “national systems of innovation” (p. 83). This great appeal is not a current issue. In 1986, Chmura argued that higher institutions were being pressured by governments and private industries to increase their participation in economic development initiatives. According to Larrance (2002), it is through higher education that human capital provides skills, curricular resources, and services and products, promoting economic vitality. These skills are more likely to be obtained through entrepreneurship education activities. Mead (1996) stressed the need for collaboration between higher educational institutions and industrial organizations in their close proximity, thus enhancing industry’s role in curriculum definition and providing the students with experiential knowledge.

Traditionally, universities have to create knowledge through basic and applied research and education (Fujigaki & Leydesdorff, 2000). The model of teaching and learning is principally linear. However, the United Nations Educational, Scientific and Cultural Organization’s *Framework for Priority Action for Change and Development of Higher Education* noted the need for “innovative schemes of collaboration between institutions of higher education and different sectors of society to ensure that higher education and research programs effectively contribute to local, regional and national development” (Chatterton & Goddard, 2000, p. 477). According to Chatterton and Goddard (2000), in a survey conducted by the Organization for Economic Cooperation and Development (OECD) in 1999 on

United Kingdom universities, only 2% of university authorities could describe their university as “a communitybased institution serving the needs of the local area/region” (p. 477). Nearly half were described as “an international research institution seeking to provide support to the local community where it does not conflict with international research excellence” (p. 477). The OECD emphasized the need for “tacit knowledge,” such as “Knowhow” (skills), “Know-who” (networking), and “Know-why” (experience), all of which are classified as “hybrid knowledge” (Chatterton & Goddard, 2000, p. 480).

Lin (2004) conducted a study in Taiwan to show how a 1% rise in higher education stock resulted in a 0.35% rise in industrial output. However, De Meulemester and Rochat’s (1995) study of six developed countries—Japan, United Kingdom, France, Sweden, Italy, and Australia—indicated that of the six countries, Australia and Italy had no correlation between higher education and economic growth. Bloom et al. (2005) indicated that social, political, economic, and technological levels were the factors that influence the graduates’ ability to make use of their “accumulated knowledge” (p. 19). Thus, higher education is necessary for growth but not sufficient without collaboration that involves government, institutions, and industries. In this study, a theory that focuses on collaboration, in addition to the human capital theory, was, therefore, necessary to consider.

2.2 Triple Helix

The Triple Helix is an entrepreneurship education theory that integrates universities with industries and the government. According to Etzkowitz (2003b), the collaboration requires “the insertion of interface intermediation capabilities for technology transfer, incubation within and among the organizations” (p. 113). According to Fujigaki and Leydesdorff (2000), “through interdisciplinary technological development, the university has become salient in a knowledge-base economy, because of its potential to serve at the junction of higher education, research, and economic development” (p. 15). The Triple Helix involves industries in the education and training process while imploring the government to provide venture capital for technology transfer offices, junior achievement companies, incubator facilities, and market openings. Penksa (2010) mentioned Silicon Valley as a practical example, “where a network of interlocking entrepreneurial academic, business, and government interests and spheres foster and sustain innovation and growth” (p. 47).

According to Etzkowitz and Leydesdorff (2000), in the early 1980s, “Harvard University sought to establish a firm jointly with one of its professors, based on his research results” (p. 110). They further indicated that in the 20th century many universities in the United States and worldwide underwent a transformation of purpose. Etzkowitz and Leydesdorff (2000) indicated that “the increased salience of knowledge and research to economic development opened up a third mission: the role of the university in economic development” (p. 110). The OECD (1980) recommended the need to induce greater transfer of knowledge and technology into marketable products. Thus, an interface strategy was needed. A focus on the relations between university, industry, and government as a means to generate strategies for economic growth and social transformation led to the development of the Triple Helix theory by Etzkowitz and Leydesdorff (2000). They emphasized innovation

as the central focus of the Triple Helix. Furthermore, the Triple Helix is specific with the roles that make innovation possible within the government, educational institutions, and industry interrelationships. Given the facilities available to students in a Triple Helix environment, students become more entrepreneurial and may demonstrate innovation within corporate bodies or as individuals with self-employment as the goal of integrated entrepreneurship education. For example, according to Mullei and Bokea (1999), about two thirds of Kenya's small scale enterprises with less than five employees perished within the first 3 years of existence, and only about 15% of these enterprises lasted more than 5 years. In 1996, the government of Kenya admitted the lack of collaborative efforts among government, aids agencies, the business community, and the people at large (Government of Kenya, 1996).

3.0 The Entrepreneurship Assessment in Ghana

Ghana had a strategic plan in 2003 to introduce integrated entrepreneurship education in higher educational institutions. The strategy lent itself to the combined theoretical framework of the human capital and the triple helix.

A mixed-method study sought to investigate the strategy's implementation and impact. The differences in entrepreneurship traits among the university students were measured whilst professors' perceptions about the strategy implementation, institutional policy, government policy, and government-university-industry collaboration also solicited.

3.1 Summary Statistics for the Entrepreneurship Traits

Sixteen entrepreneurship traits were highlighted and linked with items phrased as statements with a possible response continuum of a Likert-style five-point scale (1 = *Not at all* to 5 = *Excellent*). Demographical information of students in various schools was also requested in the instrument. In the study, 104 questions were answered by 370 participants from the various schools. The related responses were used to create composite scores to represent the 16 entrepreneurial traits. Following Cronbach's alpha test, the 16 traits were then grouped under personal, relational, and business/financial (Table 1), and the data also subjected to a principle component analysis (PCA).

3.2 Data of Interviews on entrepreneurship Teaching and Collaboration

In the qualitative research, the perspectives of professors with more than 3 years teaching experience in entrepreneurship were solicited at a university in Ghana. Six themes emerged: one-semester course, policy, course extension, initiatives and interventions, collaboration, and implementation. The participants were emphatic that the university had no policy on preparing students for entrepreneurship. However, individual schools deemed it fit to experiment with entrepreneurial training, since it does not breach the mission of the university. The entrepreneurial training taking place at the university at the time of the study was a one-semester course for final year students at the undergraduate level in all the schools. The course was compulsory for all business students, optional for nonbusiness students, and taught by the school of business. It had been operational for more than a decade, and had collaborations with local enterprises and a foreign university. The Ghana government's entrepreneurship training as captured in the 2003 Growth and Poverty Reduction Strategy had not been implemented yet.

3.2.1 Estimation Results and Recommendations

Entrepreneurship has been identified as a tool that can promote economic growth in Ghana. Some of the universities in Ghana have started experimenting with entrepreneurship training, regardless of the fact that the universities do not have it in their curriculum by policy. Of the 370 student participants surveyed, 207 (56%) had taken the entrepreneurship course. By estimation, more than 100 students in the survey may end up creating their own businesses. The study showed that the students in Ghana are not used to buying things on credit or taking huge risks. Buying things on credit is analogous to taking out a loan for an investment with the hope of paying it back as time goes by. However, there are no credit companies in Ghana.

Based on the interviews, it is worth noting that the Ghana government is creating an enabling environment for entrepreneurship through promotions and interventions within the communities. However, the lack of collaboration that pertains to the running of the entrepreneurship course at the university is evidence that the 2003 strategy to introduce entrepreneurial training as an option in all courses of study at all the higher educational institutions in Ghana had not been implemented.

Future research may require a larger sample at the same and other universities in Ghana. Similar research is also recommended for other African countries, especially those that developed strategies in response to the United Nations Millennium goal to reduce poverty by half by the year 2015, and eliminate it by 2030.

4.0 Concluding Remarks

Historically, higher educational institutions have contributed to economic and human capital development needs.

The institutions have played the role as a primary provider of formal training and development in order to increase efficiency in economic development models. In the Ghana research, the differences in the possession of entrepreneurial traits between students who had taken entrepreneurship course and those who had not, evidenced by the large effect size differences, suggests the need to ensure that every student gets the opportunity to undertake the course.

The success of entrepreneurship education implementation in countries depends on educational institutions and government policies that are aligned with improving the human capital. Based on the analysis of this research, Ghana may have to reconsider the priorities placed on entrepreneurial training in higher educational institutions as one of the strategies in the poverty reduction agenda. The universities experimenting with entrepreneurship training in Ghana need the government's support in terms of technology, enterprise promotions, and creation of entrepreneurial environment. Donor agencies that are stake-holders in tertiary education in Ghana should also consider supporting entrepreneurship training at the universities. Global credit companies can also experiment with capital ventures limited to graduates with certification in entrepreneurship in Ghana.

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Notes

Table 1 Principle Component Analysis for Validity and Reliability of the Instrument

Factor	KMO	No. of items	Communalities	Cronch’s alpha
Personal traits	.907	50	Greater than .35	.914
Relational traits	.865	20	Greater than .38	.852
Business/financial traits	.884	34	Greater than .37	.865

Table 2 and Table 3 provided general information about the entrepreneurial traits, whilst figure 1 - 3 also revealed specific traits that varied greatly among the students.

Table 2 Descriptive Statistics of the Participants’ Entrepreneurial Traits

Factor	M	SD	Skewness	Kurtosis
Personal traits	3.86	.46	-.875	2.381
Relational traits	3.81	.49	-.644	2.018
Business/financial traits	3.18	.48	-.266	.551

Table 3 Group Differences for Entrepreneurial Traits Between Groups That Have Taken or Not Taken Entrepreneurial Course

Traits measure	Taken a course n = 207		Not taken a course n = 163		df	t	ρ	Cohen’s d
	M	SD	M	SD				
Personal	3.97	.45	3.70	.42	368	5.94	< .001	.62
Relational	3.88	.53	3.72	.41	368	3.23	.001	.33
Business/financial	3.40	.41	2.90	.42	368	11.21	< .001	1.21

Note. Cohen’s d calculated with pooled standard deviation.

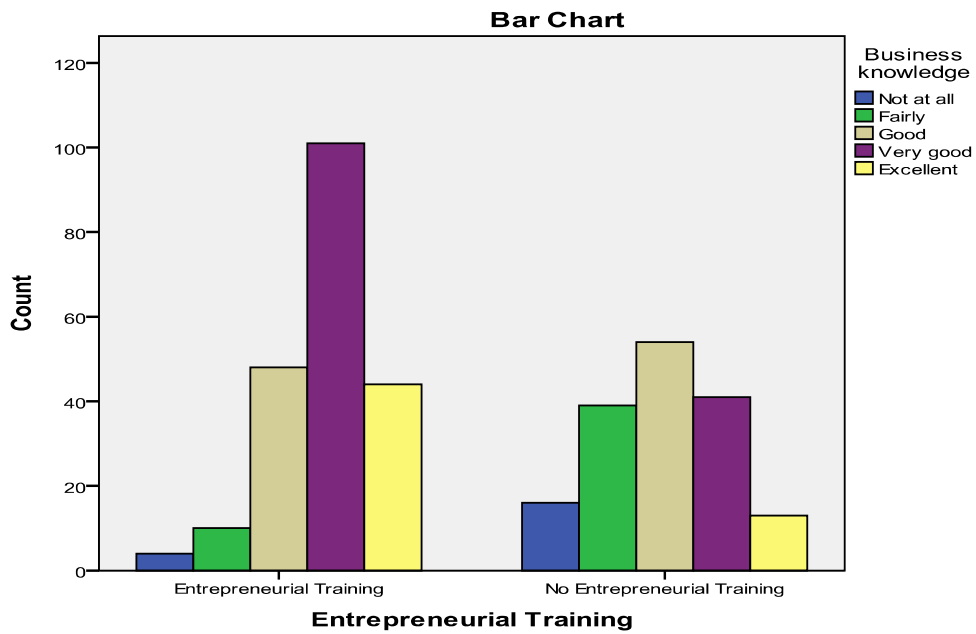


Figure 1. Frequency of participants' adequate knowledge and skills to start their own business.

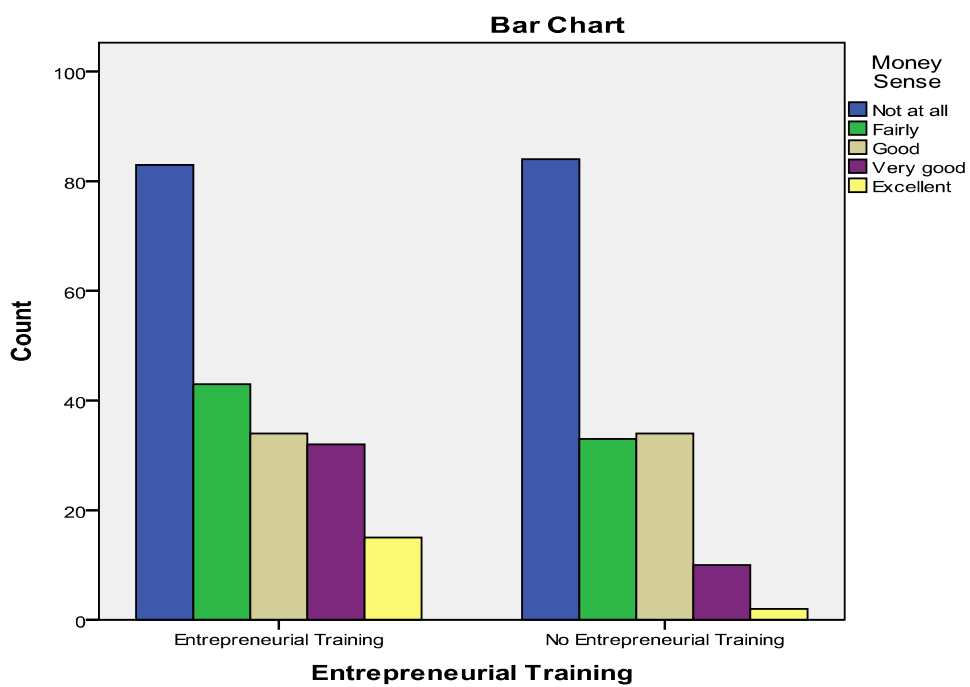


Figure 2. Frequency of participants' attitude towards buying things on credit.

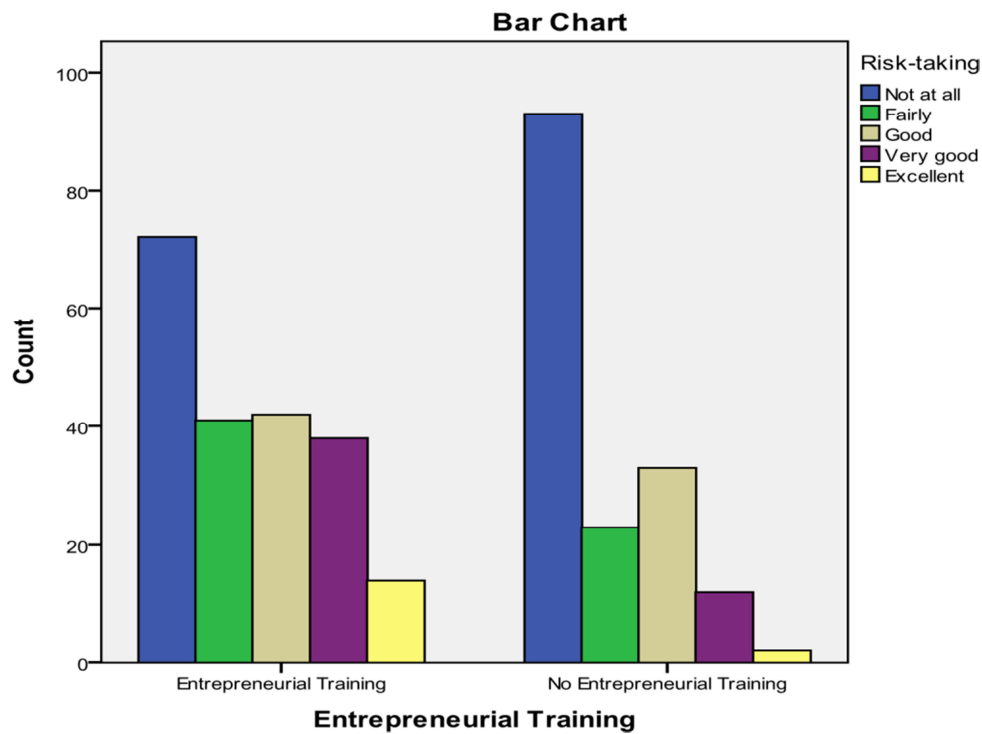


Figure 3. Frequency of participants' attitude towards risk-taking.

Author

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