



ENTREPRENEURSHIP, MENTORING AND ALTRUISM

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Abstract

In the recent years, numbers of researchers have questioned the wisdom of in class educational approach for entrepreneurship education. Proponents of taught pedagogy are increasingly faced with the dilemmas to understand and evaluate the end result either in the form of enterprise creation or application of the learnt knowledge in the real world phenomena. Students of entrepreneurship are guided to develop entrepreneurial traits through a learned process that involves acquiring insights, knowledge, skills and techniques. According to Virtanen (1997), traits and characteristics are intermediating variables that explain and predict entrepreneurial activity and behavior. Those who criticize the formal entrepreneurship education argue that the entrepreneurial traits cannot be developed during a formal academic program. Davenport and Prusak (1994) defined the business knowledge as “fluid mix of framed experience, values, contextual information and expert insight”. Further, there are many entrepreneurs who do not have any formal education in entrepreneurship. In a recent study, using the U.S. Department of Education’s Baccalaureate & Beyond (B&B) data series, Moutray (2008) found that business and management majors are either less likely to pursue self-employment or their entrepreneurial pursuit is not significantly different from other majors who would be starting a business. The current focus is to combine the theory with practical application and educate the learners in an informal manner. The 2001 Global Entrepreneurship (GEM) report raises some important concern on the quality of the entrepreneurship education, as it was difficult to transform ideas into viable businesses and proposes more involvement of successful entrepreneurs in mentoring. Parker (2004) suggested that, self-employed parents are more likely to offer informal induction of entrepreneurial knowledge compared to formal education. Mentoring is an important mechanism to bring desired entrepreneurial behaviors among the mentee or protégé. Unfortunately there are no guiding theories to show how the core skills are transformed and incorporated into the protégés own life situations. This paper formulates a theoretical model to explain mentor protégé relationship for entrepreneurship development. Based on the expected utility approach a theoretical model is constructed to analyze how the interaction between the mentor and protégé would shape the mindset of the protégé to be entrepreneurial. It is demonstrated that the mentoring is possible and could be an effective tool to promote entrepreneurship among the potential entrepreneurs, provided that a mentor is altruistic and willing to take part voluntarily.

Keywords: Altruism; Entrepreneurial Behaviour; Entrepreneurial Knowledge; Mentoring

1. Introduction

The continuing debate, whether entrepreneurs are born with entrepreneurial abilities or that entrepreneurial skills can be acquired by individuals is gradually narrowing down to support the latter.

Schumpeter's (1947) redefinition of innovators in the process of economic development has altered the neo-classical economic thinking. It was an important milestone not only in economic literature, but also in the entrepreneurship literature as well. An individual needs to be innovative not necessarily by possessing innate genetic talents and by acquiring knowledge that is sufficient to be innovative. The innovation is successful only if it is beneficial to the innovator and to the society in large. Although, rewards can be earned without an innovation, rewards from innovation are special as it is unique to the innovator.

Kirzner (1982) argued that an individual could be entrepreneurial by exploiting an opportunity for profit. One need not be inherent to identify an opportunity for profit and individuals can be trained and persuaded to recognize opportunities. It is always possible for the individuals to benefit from education either to be entrepreneurs or potential entrepreneurs.

Lack of clear definition about entrepreneurship and without consensus among the academics what constitute in entrepreneurship education program let to the adoption diverse approaches. The best practice to deliver the knowledge is known yet, but the individuals and institutions are experimenting different techniques. The proponents of the taught pedagogy opted for formal educational programs which are based on a set of predetermined syllabus. The curriculum developers know what is best for the students and often the students do not have much of flexibility to decide what is appropriate for them. Codification of a complex and ambiguous process such as entrepreneurship development may restraint the vary nature of professionalism in the literature. This typology has lead to the direction of the education not only in one direction but also the purpose of the education. Kirbey (2003) suggest that the current focus is to educate about entrepreneurship and enterprises, rather than educating for entrepreneurship. Rarely the focus is on developing students the skills, attributes and behavior of the successful entrepreneur.

In many colleges and universities entrepreneurship teaching and learning is primarily a classroom activity and carry less practical weight. Although entrepreneurship is taught in the classroom, there is still not yet a widely recognized theory to assist entrepreneurs in dealing with the uncertainties, which surround any new business creation. The ultimate result from an entrepreneurship program is action oriented rather than merely knowledge advancement, which can only be tested under real world condition (Block and Stumpf, 1992). McCarthy et al. (1997) argue that business education in new venture performance beyond its startup stage has largely been confined to anecdotal reports from successful alumni and there is little evidence that their courses and programs have prepared their graduates for dealing with post-startup problems.

Students of entrepreneurship are guided to develop entrepreneurial traits through a learned process that involves acquiring insights, knowledge, skills and techniques. According to Virtanen (1997), traits and characteristics are intermediating variables that explain and predict entrepreneurial activity and behavior. Those who criticize the formal entrepreneurship education argue that the entrepreneurial traits cannot be developed during a formal academic program. Davenport and Prusak (1994) defined the business knowledge as "fluid mix of framed experience, values, contextual information and expert insight". It takes longer time to become knowledgeable in any related field. Because individuals need to seek right information, process it and acted upon the derived decision. After repeated experiments one can achieve expert insight on perceived knowledge. By relying only on the formal education system we are running a risk of loosing some of the important characteristics that are essential to entrepreneurship development. Mintzberg (1989) was skeptical about success of the undergraduate and postgraduate business education being purely based on education. Chamard (1989) concluded that contrary to enhancing entrepreneurial characteristics, the formal education system is not particularly supportive of entrepreneurship, and possibly even suppresses the more important entrepreneurial characteristics. Not surprisingly therefore Singh

(1990) has recommended a need for reorienting the formal entrepreneurship education system to inculcate an enterprise culture.

Some of the recent researches on the effectiveness of the college level entrepreneurship educational programs discovered that the skills traditionally taught in business schools are essential but not sufficient to make a successful entrepreneur (Rae, 1997), while Welsch and Kickul (2001) have emphasized a need for a more innovative and radical approach to entrepreneurship education. The fundamental difference between traditionally taught courses and entrepreneurship is that the process of innovation cannot be taught, rather it is to be inspired by the individuals. As a result the other forms of education are emphasized that includes on the job training or experiential learning, mentoring or coaching, action learning etc. In this paper we emphasize the action learning approach as a part of social learning. Protégé learns under guidance of a mentor who does not have any other motivation other than the satisfaction by making protégé to be successful individual. As it was noted by Marsick and O'Neil (1999) in action learning the first step itself is important, where the participants in a journey toward greater self-insight, greater capacity to learn from experience, and greater awareness of the socio-economic environment. Mentoring primarily focuses on bringing a desired behavior or developing behavioral traits among the protégé in the form of vicarious learning or overt modeling.

2. *Entrepreneurial Mentoring*

Entrepreneurial role models can play an important role in promoting entrepreneurship by facilitating learning process among the potential entrepreneurs. Potential entrepreneurs can learn, retain and repeat the behaviors of the role models. A known factor in the emergence of nascent entrepreneurs is the increase supply of entrepreneurs, which depends on the perception of potential entrepreneurs. Krueger and Brazeal (1994) suggest that a perception about entrepreneurship is important, because it creates an unintentional foundation among the individuals to become an entrepreneur. Building-up such perception and reinforcing a belief that the potential individual could become entrepreneurs is vital for the success for promoting entrepreneurship. Practicing entrepreneurs could be the building blocks for providing an environment to create self-initiating perception. But the danger of having only the role model is the consequences of that behavior can either be positive or negative and the role models are not responsible for the outcome of the observer.

Lanier and Little (1986) argue that prospective and practicing teachers can indeed 'learn new tricks', and master all sorts of subject matter knowledge and skills of the trade. As such practicing entrepreneurs are identified as the best source of trainers. Mentoring is an effective mechanism because the learning takes place in the socialization process, where the entrepreneur offers guidance and assistance for potential entrepreneurs, when facing difficulties and challenges in embarking on an entrepreneurial process or enterprise creation. The entrepreneurs act as mentors while continuing their own livelihood goals, but willing to spend some time and effort to help the protégé to develop skills and attitudes that are necessary for venture creation. This learning process involves adaptive learning in order to cope with change and as a result survival is increased. It also embodies the capacity to create and incorporate experience (Sullivan, 2000). There are numerous researches done on mentor protégé relationships, several of them have "exclusively focused on women mentoring relationships" (Noe, 1988). In the organizational context, mentoring is used to increase job satisfaction and retention (Mullen, 1994) and there is considerable

literature to support that the mentors conveying knowledge about organizational routines and managerial systems (Swap et al., 2001).

A greater degree of emphasis was placed on structuring of the mentor/protégé relationship but few studies have been done on benefits from mentoring relationship (Noe, 1988). The mentor protégé relationship is a function of many activities (Kanter, 1977), the literature that explains the functional relationship between mentor and protégé is inexistence. This piece of information will be very useful to understand the process of knowledge and skill transformation. A generic approach to the existing literature will help the not only the mentors but also the academics who design and implement mentoring programs for entrepreneurship development. It was reported (Swap et al., 2001) that in recent years, the concept of mentoring has been extended to include peer-to-peer help and to protégé-to-mentor learning. The model proposed in this paper is a theoretical model that explains mentor/protégé relationship using economic theory.

3. Modelling Mentor Protégé Relationship

Traits are important personal qualities that could portray entrepreneurial abilities of individuals. Traits are closely associated with the mind-set of the individual, part of it is manifest and the other part is latent. Often manifest traits are expressed through behavior and it is possible to observe one individual's behavior evaluate the entrepreneurial characteristic. It is also possible to compare the individual's entrepreneurial characteristic and equate with a successful entrepreneur and one could reasonably evaluate presence of entrepreneurial characteristic in one individual. These characteristics could be one or combination of many, which will give a competitive edge being entrepreneurial among the other individuals. Since these characteristics are unique to individuals, the judgment should be done based on case by case. Considerable research has been done on the personal characteristics of entrepreneurs and Drucker (1993) suggest that entrepreneurs' performance is as a result of host of interacting factors.

According to Timmons et al (1994) "we do not believe that there is any single set of characteristics that every entrepreneur must have." We define some variables (X_i) that are measurable and can be used to determine the entrepreneurial abilities of an individual. Competitive market theory advocates that given a profitable (supernormal profit) opportunity the agents would react to exploit the opportunity. It is a rational behavior. The necessary condition for entrepreneurial insight is rationality, but it is not sufficient. Given an opportunity for two rational individuals to create values (profit) one individual may fail, while another one might succeed. Failure is a reflection of susceptibility to various cognitive errors (Busenitz & Barney 1997). It is a known fact that in US, new firms have a much greater likelihood of closing (table 1) than established firms (Carroll & Hannan, 1989; Utterback & Suárez, 1993). As such successful entrepreneurship training should have the mechanism to reduce the cognitive errors. Unfortunately a college graduate who is educated in entrepreneurship faces multitude of uncertain environment, hence the help that he/she can get is very limited. The instance support or knowledge needed to overcome the uncertain environment is crucial to succeed the competitive and complex situations. What is required is It would be even harder an adult to face with these complex situation without college education.

The opportunities do not arise with prior hint, nor is it to be present forever. As and when an opportunity arises, the entrepreneur must be able to make use of it. If the entrepreneur cannot handle by himself/herself then the entrepreneur should be able to manipulate and influence the surrounding factors to improve the chances for success of the venture (Timmons, 1994). Availability of resources and capacity to mobilize would impact subsequent existence of the firm. Personal characteristic could play decisive role resource mobility

and social skills would be more useful than technical skills (Goleman, 1995). Markman and Baron (1998) reported that given the socio-economic environment equal for potential entrepreneurs, the one with better social skills tend to outperform the ones without those skills. These social skills are associated with the behavior and varying in degree among the different individuals. Numerous social skills can be identified.

Table 1: Starts and Closures of Employer Firms in US

Category	1990	1995	2000	2001	2002
New Firms	584,892	594,369	574,300	545,400 e	550,100 e*
Firm Closures	531,892	497,246	542,831	568,300 e	584,500 e
Bankruptcies	63,912	50,516	35,472	39,719	38,155

Source: SBA

Based on past literature Markman and Baron (1998) identified five of those skills, which are defined as (Xi). Though there is a greater interdependency among these skills, it was assumed to be independence.

- X₁ social perception—accuracy in perceiving others, including their traits, motives, and intentions
- X₂ impression management—techniques for inducing positive reactions in others
- X₃ persuasion and influence—techniques for changing others’ attitudes or behavior in desired directions
- X₄ emotional intelligence—ability to regulate one’s own emotions and to influence others’ emotional reactions; and
- X₅ long-term relationships—skills that assist individuals in establishing effective long-term relationships, such as providing positive and negative feedback to and proficiency in managing interpersonal conflicts.

Since it is hard to measure the real degree of the above characteristics as a measure of entrepreneurship, one could make a judgmental assessment of the individual whether that individual is an entrepreneur or capable to become entrepreneur. We can hypothesises this scenario between a protégé and a mentor.

Mentoring is neither an abrupt intervention of protégé’s nor a client consultant relationship. It is a mutual process where the mentor and protégé understand their roles and rules of engagement. Primarily the mentor’s role is to help the protégé to develop the social skills (Xi) and train the individual to be entrepreneurial. Good mentors create opportunities for the protégé (Noe, 1988). Mentor observes social skills (Xi) of protégé. Some portion of social skills (Xi) is observable and measurable and the other portion is not. The unknown portion is equally important to evaluate the entrepreneurial abilities of the individual and we assume the mentor has no knowledge on the unknown portion. We could use the Laplace’s principle which postulates that the uniform distribution is the most representation of knowledge (Milakovi, 2001). Mentor makes judge (perception) protégé’s entrepreneurial ability based social skills (Xi) and communicate to the protégé. Since the judgment is subjective, the mentor can ascertain whether the protégé is entrepreneurial or not. If the protégé is entrepreneurial we define $\lambda = 1$ and if the individual is not

* e = Estimate using percentage changes in similar data provided by the Bureau of Labor Statistics, Employment and Training Administration

entrepreneurial then $\lambda = 0$. Since this can be expressed as a binomial function we can rewrite the relationship as;

$$\text{Entrepreneurial } (\lambda = 1) = F(\mathbf{X}\beta) \text{ or}$$

$$\text{Not Entrepreneurial } (\lambda = 0) = [1 - F(\mathbf{X}\beta)].$$

\mathbf{X} is the vector of explanatory variables. The parameter β reflects the impacts of changes (X_i) on entrepreneurial development. The probability to observed protégé as the entrepreneur and not entrepreneur is defined as $\lambda(X_i)$ as $[1-\lambda(X_i)]$ respectively, where $\lambda(X_i)$ is $0 < \lambda(X_i) < 1$ and $(1 - \lambda(X_i))$ is $0 < [1-\lambda(X_i)] < 1$. Since $\lambda(X_i)$ increases with the increase measure of X_i , $\lambda'(X_i) > 0$ and $\lambda''(X_i)$ indicating $\lambda(X_i)$ increases with a decreasing rate. That is to say that it would be harder for an individual to achieve perfection on those explanatory variables.

Developing entrepreneurial abilities based on the above characteristics/traits (X_i) is crucial to the potential entrepreneur (protégé). We hypothesize a relationship between mentor and protégé. Mentor guides the protégé to develop some skills that will help the protégé to improve his/her entrepreneurial abilities. Protégé lacks these skills and are pre-request to achieve a desired level of entrepreneurial ability. This support and encouragement to protégé could be the way of realization of the entrepreneurial dream. It is the decision of the protégé to acquire those skills or not. Protégé would apply those skills to create or expand wealth/values. If the outcome is good then the protégé has become more entrepreneurial and if it is not good then the protégé has not yet developed his/her entrepreneurial abilities. Wealth creation is proportional to developing entrepreneurial abilities. We define two levels of wealth; the first is associated with higher entrepreneurial abilities (W_h) and the other with lower entrepreneurial abilities as (W_l). Though there is a strong relationship between the wealth creation and entrepreneurial characteristics (X_i), we assume the characteristics/traits (X_i) are likely to impact the satisfaction of the individual gained from wealth creation.

Karni (1983, 1987) introduced a concept of state dependent utility function, where the utility of the individual depends on the any given level of wealth and varies with the status of nature. The protégé receives utility by creating/expanding the wealth. These two levels of wealth (W_h and W_l) are associated with as $\lambda(X_i)$ and $[1-\lambda(X_i)]$ respectively. The state dependent utilities for more wealth and less wealth are $U(W_h)$ and $U(W_l)$ respectively. Karni (1983) assume such utility functions are strictly concave and continuously differentiable, $U(W_h) > U(W_l)$ and $U'(W_h) > U'(W_l)$.

The mentor does not have the authority or necessity to penalize the protégé for not developing those recommended skills. Poor performance by protégé may have negative impacts on the relationship. The mentor disciplines the protégé if he/she does not develop the skills by not guiding for new opportunities. As Johnson (2002) notes "a true mentor is capable to see what the protégé can become confidentially affirms this vision, long before the protégé arrives as professional". This would benefit mentor, protégé and to maintain a complementary relationship. Mentor needs to be convinced that the protégé is capable to achieve certain goals with the commitments of resources and efforts. This also will help the protégé not only to invest the scarce resources effectively but also to develop competencies and self esteem. It is a necessary condition for the continuum of mentor protégé relationship as well. Failure from protégé's part may cause place distrust on the mentor. Poor performance by protégé may cause the mentor for not guiding the protégé in his/her advancement. This could be costly to the protégé and it can be either financial or satisfaction. We assume it terms of satisfaction (utility) and define it as S . The opportunity cost (forgone utility) S from the result of not developing entrepreneurial characteristic. As such we can re-write S as $S(X_i)$,

where $S'(X_i) > 0$ and $S''(X_i) > 0$ implied that forgone utility is positively associated with not developing the skills and are increasing at an increasing rate. It is to say that the higher inability to develop those social skills, higher the forgone utility. The protégé may differ in bearing such losses, which depends on the psychological and socioeconomic conditions of the individual. We define the ability of the protégé to bear the forgone utility as β . So the total forgone utility associated with not developing those skills is $\beta S(X_i)$.

The objective of the protégé is to maximize his/her state dependent utility, which can be stated as;

$$U = U_h(W_h) + U_l(W_l) \tag{1}$$

Since we assumed that the characteristics (X_i) are likely to impact the satisfaction of the individual that are associated with wealth levels, the total utility can be written as stated as;

$$U = \lambda(X_i) U_h(W_h) + [1-\lambda(X_i)] U_l(W_l) \tag{2}$$

λ and $(1-\lambda)$ are the likelihood of impacting utility from higher wealth and less wealth creations respectively. The net utility of the protégé includes the forgone utility (βS) associated with not developing the entrepreneurial skills. We could rewrite the utility function as;

$$U = \lambda(X_i) U_h(W_h) + [1-\lambda(X_i)] U_l(W_l) - \beta S(X_i) \tag{3}$$

U can be referred as an expected utility function. Given the specification of the expected utility function U , the protégé choose X_i that maximizes his/her expected utility. The maximum utility is achieved for given level of X_i is when the first order condition for of the expected utility function with respect to X_i is zero.

$$\frac{\partial U}{\partial X_i} = \lambda'(X_i) U_h(W_h) - \lambda'(X_i) U_l(W_l) - \beta S'(X_i) \leq 0 \tag{4}$$

$$\lambda'(X_i) [U_h(W_h) - U_l(W_l)] \leq \beta S'(X_i); \text{ if } \frac{\partial U}{\partial X_i} < 0, \text{ then } X_i = 0 \tag{5}$$

Equation (5) is the equilibrium condition when protégé maximizes his/her expected utility, which implies that the expected marginal utility gain is equal to marginal utility cost. The protégé develop the entrepreneurial characteristics according to the incremental wealth that generates from developing it. The protégé would develop the skills that result the results the highest return. The characteristics that the protégé would develop may not be the same for higher or lower wealth. Borrowing from the argument presented in Chang (2002) the skills that the protégé would choose develop can be written as

$$\frac{\partial W_h}{\partial X_i} = \frac{\lambda'(X_i) U'(W_h, \beta)}{J_1^*} > 0 \tag{6}$$

$$\frac{\partial W_l}{\partial X_i} = \frac{-\lambda'(X_i) U'(W_l, \beta)}{J_1^*} < 0 \tag{7}$$

$$\text{where } J_1^* = \lambda''(X_i)[U(W_h) - U(W_l)] - \beta S''(X_i) < 0$$

The above two conditions (6 and 7) will ensure concavity of utility function on X_i . Thus the protégé would attempts to develop those skills that will increase his/her wealth while avoiding the skills that will reduce the wealth of the protégé. Equation 6 is important for entrepreneurial development, because it enhance the

protégés locus of control by rewarding for their own actions or actions that resulted with the influence of external forces in their environment. If the rewards are as a result of their own then the protégé's would believe in themselves and likely to improve and participate development activities that will advance their skills (Noe, 1988). On the other hand the condition in equation 7 helps the protégé to develop emotional stability. This personal characteristic is considered to one of the important personality dimensions (Digman, 1990) providing the individual with self-esteem and negative affectivity (Turban et al., 1994). Because of the negative affectivity the protégé attempted to alter the behavior by withdrawing or avoiding the tasks that are likely to threaten their success.

Mentor act on his/her own to create wealth, which is independent of protégé's wealth creation. We defined mentors wealth as W_m . Mentor dispenses some of his time and resources to guide the protégé, where there is an opportunity cost for the mentor, which could have generated some wealth otherwise. The time and resources that the mentor allocates are limited (Ridley, 2000). This opportunity cost is proportionate to mentor's wealth and defined as μW_m , where μ is the proportionate time spend on protégé and $\mu < 1$. The mentor protégé relationship is considered to be different from other related relationships, as it is intense and emotionally charged (Shapiro et al., 1978). Mentors involvement is voluntary and the only benefit he/she gains is the satisfaction by contributing to the wealth creation/improvement of protégé. Mentors opportunity cost could be equal or greater or less than the protégé's wealth creation.

$$\mu W_m \leq \text{or} \geq \lambda(X_i) W_h + [1-\lambda(X_i)] W_l \quad (8)$$

The mentor has no regret if the protégé make an equal value of wealth to the opportunity cost of mentor. If the protégés wealth is less than the opportunity cost of the mentor then it is a disutility to the mentor. Further the mentor would by always trying avoid this disutility.

If $\mu W_m > \lambda(X_i) W_h + [1-\lambda(X_i)] W_l$] then protégé is creating as much as wealth as mentor. That is the signal that the protégé has developed the necessary abilities to be become an independent entrepreneur. This is the point of departure for the mentor and the protégé does not need support of the mentor. Kram (1980) suggest that the mentors become envious and resentful if the protégé surpass their own achievement than the mentor. The utility function of the mentor is the function of his/her owns wealth and the net wealth creation from mentoring the protégé.

$$V = V_m \{ W_m, \mu W_m - [\lambda(X_i) W_h + (1-\lambda(X_i)) W_l] \} \quad (9)$$

Mentors are considered to be most professionally paternalistic of the patrons (Hunt et al. (1983). Altruistic nature of the mentor helps to maintain a cordial relationship between the mentor and protégé. Since the mentor is altruistic, he/she receives utility from the expected utility of the protégé. Mentors get satisfaction and confirmation through helping less experienced individuals in their development (Hunt et al. 1983). The utility from the altruistic portion is proportional to the expected utility of protégé. As such the mentor's total utility is

$$V = V_m \{ W_m, \mu W_m - [\lambda(X_i) W_h + (1-\lambda(X_i)) W_l] \} + \alpha \{ \lambda(X_i) U_h(W_h) + [1 - \lambda(X_i)] U_l(W_l) - \beta S(X_i) \} \quad (10)$$

Where α is the level of altruism.

The objective of the mentor is to direct the protégé to maximize the state depend wealth (W_h, W_l) through the development of entrepreneurial traits in the protégé. Since mentor is altruistic, this also maximizes the expected utility of the mentor. The optimal conditions for wealth maximization are;

$$\frac{\partial V}{\partial W_h} = V'_m \{W_m, \mu W_m - [\lambda(X_i) W_h + (1-\lambda(X_i)) W_l]\} (-\lambda(X_i) + \alpha[\lambda(X_i)U'_h(W_h)]) \leq 0$$

if $\frac{\partial V}{\partial W_h} < 0$ then $W_h = 0$ (11)

$$\frac{\partial V}{\partial W_l} = V'_m \{W_m, \mu W_m - [\lambda(X_i) W_h + (1-\lambda(X_i)) W_l]\} (\lambda(X_i) - \alpha[\lambda(X_i)U'_h(W_h)])$$

$$= V'_m \{W_m, \mu W_m - [\lambda(X_i) W_h + (1-\lambda(X_i)) W_l]\} = \alpha[U'_h(W_h)]$$

$$= V'_m \{W_m, \mu W_m - [\lambda(X_i) W_h + (1-\lambda(X_i)) W_l]\} [(1-\lambda(X_i)) + \alpha\{(1-\lambda(X_i))U'_l(W_l)\}] \leq 0$$

if $\frac{\partial V}{\partial W_l} < 0$ then $W_l = 0$ (12)

$$= V'_m \{W_m, \mu W_m - [\lambda(X_i) W_h + (1-\lambda(X_i)) W_l]\} [(1-\lambda(X_i))] = \alpha\{(1-\lambda(X_i))U'_l(W_l)\}$$

$$= V'_m \{W_m, \mu W_m - [\lambda(X_i) W_h + (1-\lambda(X_i)) W_l]\}] = \alpha[U'_l(W_l)]$$

The above two conditions are important for mentoring. That is to say that the mentor does not direct the protégé for opportunities that returns are disutility for the mentor. It is because of two reasons. First the change in mentor's utility as a result of added wealth to the protégé is proportional level of utility gained of the protégé. Less wealth to protégé is associated with lower utility. Second as the protégé performs well, mentors reap extrinsic rewards such as enhance professional recognition, greater networking (Ragins and Scandura, 1994), rejuvenation of creative energy from collaborating with protégé and a sense of generativity (Levinson et al., 1978). Since the mentor and protégé utility function is inter-dependent above objective functions 4, 11 and 12 should be solved simultaneously. Using the explicit functions theorem the equations 11 and 12 can be solved as

$$W_h = W_h [\alpha, \lambda(X_i), W_m, \mu] \tag{13}$$

$$W_l = W_l [\alpha, \lambda(X_i), W_m, \mu] \tag{14}$$

The equation 13 and 14 are the equilibrium levels conditions for more wealth and less wealth creation by the protégé. It is noteworthy that these two equations are function of the same variables, such as the level of altruism by the mentor, protégés entrepreneurial characteristics, wealth level of the mentor and time spend on protégé by the mentor. Equation 13 and 14 implied that the wealth creation by the protégé is not only the function of entrepreneurial characteristics but also the function of altruism, wealth level of the mentor and proportionate time spend on protégé by the mentor as well. . The equations 13 and 14 are the important functional relationship in mentoring, which will facilitate the mentoring process and also helps the protégé to develop hi/her entrepreneurial characteristics. But the change in wealth as a result of change in entrepreneurial characteristics is depends on the wealth level of the protégé. By borrowing the arguments from (Chang, 2003) the comparative statistics are as;

4. Conclusion

The conceptual framework presented in this paper attempts critically evaluate literature on class bound approach for entrepreneurship education. It is evident that it is difficult to teach an individual to be entrepreneurial, but rather the individual can be guided to develop personal characteristics and other social skills that eventually transform the individual to be an entrepreneur. This paper also explains the by building the relationship between the potential entrepreneurs (protégé) and practicing entrepreneurs, is a key factor. The conceptual model is built using entrepreneurial characteristic of the protégé and altruistic entrepreneur who maximize the expected utility. The model explains a simple structural relationship which can be used to evaluate and promote entrepreneurial characteristic among the potential entrepreneurs.

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