

American Journal of
Psychology
(AJP)




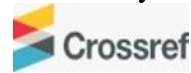
**Transforming Brown Practices into Green Jobs: Training
Intervention and Green Job Motivation of Agripreneuship
Trainees**

Fomba Emmanuel Mbebeb



Transforming Brown Practices into Green Jobs: Training Intervention and Green Job Motivation of Agripreneurship Trainees

 **Fomba Emmanuel Mbebeb**
FED, The University of Bamenda



Article history

Submitted 26.05.2024 Revised Version Received 05.07.2024 Accepted 06.08.2024

Abstract

Purpose: Within the backdrop of labor market uncertainty for young people and environmental externalities, the study tested the effect of training intervention on green collar job motivation of agripreneurship trainees in a green growth project in Mezam, North West Cameroon. Focus was on training, attitude and social pressure as determinants of green job motivation of agripreneurs.

Materials and Methods: The study adopted a quantitative survey design with the goal of data on green collar job training and motivation and a sample of 125 participants (71 females; 54 males) was recruited from a training intervention initiative from Mezam, North West Cameroon. An instrument with internal reliability consistency ($\alpha=0.74$) was used to gather information. The information was entered into SPSS version 27, and correlation and hierarchical regression were used as test statistics.

Findings: According to the results, it was reported as a significant predictor of green job motivation, $p < 0.05$. In the second model capacity building and attitude significantly determined green job motivation $p < 0.05$. While the third model (capacity enhancement, attitude, social pressure) was significant, $p < 0.05$, social pressure as a

separate dimension failed to determine green job motivation, $p > 0.05$, of agripreneurs trainees. From the results of the study it was reported that training factors were capable of predicting green job motivation and the need for transforming brown occupations was also recognised within green growth venture.

Implications to Theory, Practice and Policy: Green economic activities have undergone evolution with demands for new skills and training should be recognized as a sustainable measure of green collar job behaviours. Considering the position of green growth models in developing green collar mindset, it asserts that greener occupations are capable of catalysing wealth creation, environmental justice and sustainable and should be promoted. Therefore, advocates of green employment should draw from policy strategies and enrich training programmes to be more responsive to changing environmental, suggesting transformation from brown to green through green mindset building. While the paper contributes to scarce body of knowledge in green jobs, implications for policy and practice have been presented with areas for future research

Keywords: *Brown Jobs, Green Jobs, Training Intervention; Green-Job-Motivation*

1.0 INTRODUCTION

Work is a core value and the transformation of brown into green jobs has attracted behavioural analysis within the green growth paradigm. Interest in green jobs also augments with the growing recognition that capacity enhancement can demystify psychological barriers involved in sustainable ventures. In this respect, Inter-Agency Working Group [IWG] (2013) emphasized that interest should be on ways of anticipating and meeting the skill needs of labour markets while pursuing sustainable development and green growth. It becomes clear that labour market shifts demand alternative skills requirement as a prerequisite for green growth. Current efforts in promoting sustainable economy, though deficient in psychological literature, seem to be locked up in green collar jobs, which are known as environmentally-friendly occupations. To Khalid and Nayma (2013), the green job concept highlights labour market shifts that are directly dependent on various aspects of environmental management, low carbon development and climate change adaptation. Within the green growth paradigm, the United Nations Environmental Programme [UNEP] (2011) observed the changing pattern of employment with the emergence of new jobs in favour of greener, cleaner and more sustainable occupations. This is evident, but it can only be achieved if actors of green businesses have the necessary green attitudes, motivations and intent, and this depends inter-alia on training interventions.

Green activities are elastic having a wide scope at different levels of business and draw in different patterns of behaviour. Herren, Bassi, Tan, and Binns (2012) explained that there are incremental positive impacts on job creation in both on-farm processing, and non-farm production of organic agricultural inputs as well as post-harvest farm-to-market supply chains. Though available in many forms, transforming brown jobs into green jobs constitutes major behavioural challenges since it involves influencing perceptions and attitudes as pre-conditions for green behaviours. Current psychological responses to global change have recognised behavioural models, which uphold that the development of green mindsets and skills are fundamental to the promotion of green collar ventures. Such competence-driven initiatives are borne out of occupational activities drawn from complex persistent problems of unsustainable growth requiring urgent action (Bowen, 2012; Micangeli et al., 2014). To promote low carbon economy the need for the creation of new jobs and elimination of some activities while subjecting some operations to change have been strongly expressed (Brown, 2012). Though environmental, economic and institutional factors constitute a lot of barriers in promoting low carbon economy, it involves complex human factors, which are cognitive, affective and overt expression of green occupational actions. Therefore, promoting green employment policies implies the greening of a more active employment policy system (Khalid and Nayma, 2013), and this explains the interest of many Governments and development agencies in injecting green values into environmental policies in all sectors. In addition, green growth discourses and initiatives are geared towards the empowerment of institutions, workers and prospective actors to cultivate eco-friendly behaviours, which are capable of promoting the green growth paradigm.

The emergence of a green growth paradigm and the growth of green collar jobs have attracted exciting literature and models to explain issues relating to green growth, and this is drawn from several disciplines including biological, economic, management, ecological, social and behavioural sciences. These orientations hook up with the green growth pathway from different interests and dimensions at the grassroots. Although the psychological dimension of green business

is often undermined in sustainability drives, psychological resources are gradually being recognised on the platform of the green revolution. Environmental restoration jobs offer opportunities for those with limited formal education and lots of psychological inputs and benefits have been found to extend to vocational horticultural activities, particularly in training program participants (Falxa-Raymond et al., 2013). In this vein, psychological attributes such as attitude, perception, motivation and emotions become indispensable factors in the process of crafting green collar jobs particularly in local contexts. This no doubt projects the dire need for green skills enhancement as a necessary pre-condition for green collar job creation motivation and this is capable of greasing the green economy pathway. In this respect, UNEP (2011) acknowledged that greening economies implies a new engine of growth, a net generator of decent jobs, and a vital strategy to eliminate persistent poverty. This justifies current quest for green skills and jobs, which have of late gained considerable attention, positioning learning as a pathway to green collar job initiatives. This cannot be dissociated from capacity building, perceived by UNEP (2008) as the catalyst and constant fuel for a process of change. As a sensitive and topical inclusive framework, global drive towards a green economy has recognised awareness creation and training as prerequisites for natural resources economic and social development (Fomba, 2016; UNEP, 2011). Recognizing that it is difficult for individuals to perform on native ability, and that learning as an adaptive mechanism, which enhances human competence, the notion of capacity enhancement becomes critical in green growth ventures.

Addressing the pressing need to promote new generations of green job creators capable of identifying and taking advantage of green business opportunities (Farinelli et al., 2011) is indispensable as a response to environmental externalities. This is common in green job circles particularly in local communities where green activities are sources of subsistence, and have caught the attention of policy strategies. In this respect, Cameroon's Ministry of Planning, Economy and Regional Development [MINPAT] (2009) acknowledged that unsustainable exploitation of ecological resources are responsible for loss of biodiversity and has enshrined green economy values into its white paper as responsive measures of sustainability. This expresses a need for eco-friendly occupations that require creative initiatives capable of transforming opportunities into socially responsible economic growth. In the process the role of psychology is criticality due to behaviour change challenges in the process of sustainable development. Behaviour change implies cultivation of relevant eco-behaviours and capacity strengthening has become a dominant theme in promoting green jobs and sustainable enterprises. In Cameroon for instance, revitalising the green economy framework has identified training as a source of awareness, interest and motivation for green job start-up. Advocating green collar jobs for people with barriers to employment can be an effective strategy to provide low-income individuals with access to good jobs that provide workers with meaningful benefits and growth opportunities (Pinderhughes, 2006). This responds to the sensitive problems of poverty for both rural and urban job entrants, who poses significant potentials but with little knowledge and skills to go green. Though there are many dimensions of green jobs, Herren et al. (2012) emphasized the expansion of organic farming, which relies on ecological processes, biodiversity and cropping cycles adapted to local conditions, while limiting the use of agrichemical inputs. This should be of particular interest to agrarian nations like Cameroon, whose population depend largely on agriculture as a source of employment and sustainable livelihood.

The present paper unveils within the context of green economy, an emerging and inclusive green growth model. Emerging as a pro-poor and social equity strategy, green economy has isolated empowerment as an key theme in revitalizing green enterprises (Fomba, 2016). Since green collar jobs strive for a balance between economic interest and environmental justice, it becomes imperative to grow green collar jobs on green growth pathway using training intervention as a viable mechanism to promote green collar jobs. There is no doubt there is paucity of literature in green jobs in Sub Saharan Africa, but much is being done with regards to practices in transforming all jobs, whether brown or white collar into green activities. The absence of documentation is glaring in Cameroon, notwithstanding the fact that available policy statements have supplemented some patchy literature and references to green orientations and practices. Despite the understanding that the psychological dimension of green economy appears to be down played in sustainability initiatives, this is perceived as myopic since attraction and motivation to green business depends on the state of human behaviour. Most studies in green jobs are so technical, while neglecting psychological contributions, which can successfully catalysed green growth mindset transformation. Even studies in venture creation particularly with young people are yet to embrace the dimension of green jobs despite the fact that features of green business are dormant in all work activities and require activation. There is no gainsaying that many factors affect the realisation of green jobs, but the current paper submits that crafting green collar jobs necessitates enhancement of psychological factors capable of facilitating green color job motives in-context.

Cultivating Green Collar Job Mindset

An emerging global response to sustainability has been the development and systematic expansion of a green economy landscape, which is perceived as a panacea to unemployment, wealth creation and environmental protection. To the African Union (2011) green economy intends to develop an economic system that builds and enhances the earth's natural capital base to maximize economic benefits and minimize environmental and social losses. The sector is all inclusive, and involves businesses like renewable energy, low-carbon transport, energy efficient buildings, clean technologies, improved waste management, improved freshwater provision, eco-agriculture and forest management. The transition to a green economy has attracted policy discourses from different circles and sectors as a result of widespread disillusionment with on-going development activities dominated by economic interest and pressure (UNEP, 2011). Green collar job builds on the proposition that economic motives have been at the source of resources depletion, and green business can promote economic growth, poverty alleviation and environmental sustainability. In Africa for instance, agricultural exploitation has taken a lead in the landscape, building on cultural realities with immense opportunities and support from indigenous knowledge values. This does not exclude support from Governments and development partners with different initiatives at community levels. For instance, the African Union (2011) was persistent that green economy must embody green farming to enhance biodiversity and maintain higher levels of productivity in order to feed an expanding population in the continent.

The place of agriculture cannot be undermined as the biggest employer of rural people in the continent and eco-friendly agriculture should be encouraged. This is the situation of Cameroon considering that agriculture has traditionally been a green collar job before the advent of agrochemical farm inputs and unsustainable consumption patterns. In addition to food security, efforts in promoting education and skills in green collar jobs are being harnessed to promote community-based initiatives, which are incidental to climate change mitigation and adaptation. In

this respect Fomba (2016) asserted that a key link exists between training and opportunity detection, innovation, creation and invention, Agriculture appears productive as a measure of generating green collar jobs for young people at-risk of economic and social distress if the appropriate knowledge and skill sets are harnessed.

The Cameroon Government is currently facing the task of growing into a transition economy by 2035. Among others, the challenge of developing an innovative strategy to promote green growth and green jobs is one of its priorities. Due to persistent unemployment and underemployment amongst youths, the government introduced entrepreneurship programmes to promote and enhance skills acquisition, ease the spirit of creativity, self-reliance and self independence (Neneh, 2014). This is because the transition to a sustainable economy has the potential to create green jobs across economic sectors as investments in new technologies, equipment, buildings, and infrastructure continues to increase and serve as key drivers for new employment and an impetus for retraining and transforming existing jobs (Rupert et al., 2018).

The generation of green jobs is a great opportunity to sustainability in Cameroon considering that the nation is dominantly agrarian. Furthermore, there are many unemployed young school leavers who can make a career in green ventures of their choices. Recognizing the fact that climate change has become an important phenomenon with grievous consequences on economic, social and environmental resources (MINPAT, 2009), capacity enhancement as a behaviour change strategy has been perceived as an optimistic measure of fostering green growth mindset. In terms of economic development, agriculture is a cornerstone of the Cameroonian economy, and this is why it gains much attention at the centre of green growth (African Union, 2011; Fomba, 2012; MINPAT, 2009). Apart from environmental and situational forces, personality deficiencies such as low drive towards green initiatives appears to have helped in the reinforcement of conventional brown practices that deplete ecological resources. As a way forward, training young people in green agricultural production appears a necessary precondition for a second generation of agriculture that stand to promote green agro enterprises in Cameroon. Though jobs created within the green growth paradigm have higher local content than traditional fossil-fuel-based economic activities (Borel-Saladin, 2013), green job attitude and motivation remains dormant, and this is generally attributed to inappropriate education and training.

Enhancing the capacity of young people as prospective green job creators has a lot of competitive edges and should be encouraged on the green growth platform. Over the years, some organisations such as Youth Outreach Programme, North West Region, Cameroon, has been noted for frantic efforts in training young people to develop a spirit of self-reliance. In some of its training activities, a particular attention was focussed on greening the environment by getting rid of all chemicals being used in blue collar agricultural activities. This draws from the recognition that trainers have a critical role to play in promoting environmental awareness among young people and beyond formal system of education by reaching out into the communities (IWG, 2013).

Precisely, the green programmes was designed to empower youths to refrain from brown practices including the use of all forms of chemical and toxic substances in agribusiness activities in achieving sustainable livelihood. Implicit in the training and education programme was to reinforce green attitudes, motivation as a prerequisite to green job creation. The training built on the recognition that training-intervention strategies will influence green job mindset and green venture intent. Recognising green economy as a net generator of decent jobs (UNEP, 2011), and

that resources management and sustainability depends on capacity building (Fomba, 2016), the question is whether green job motivation could be ignited following training intervention. Precisely, the main question of the paper is whether green-growth training can determine green job attitude and motivation of young people into green collar job.

Statement of the Problem

Global change and unemployment has been a disturbing phenomenon, green jobs have been celebrated as a labor market shift designed to transform prevailing brown practices into green jobs ventures. As a response training in green jobs have been recognized as a viable option in the green growth paradigm (Bowen, 2012; Fomba, 2016; Micangeli et al., 2014). For instance, in Cameroon, promoting green employment policies implies the greening of a more active employment policy system (Khalid and Nayma, 2013), capable of promoting green jobs within the green growth paradigm. Unfortunately, lots of brown practices are still being observed particularly in the agricultural sectors such as slash and burn and use of chemical fertilizer. These practices are also at variance with the vies of MINEPAT (2009) of Cameroon that unsustainable exploitation of ecological resources are responsible for loss of biodiversity and this requires the internalization of ecological values as viable measures of sustainability. This has also been further explained (UNEP, 2011) that greening mindset and subsequently the economy constitutes a a new engine of growth capable of generating jobs, elimination of persistent poverty and promotion of environmental justice and requires empowerment of young people. Furthermore, there is recognition that green growth discourses advocates the empowerment of institutions, workers and communities to cultivate eco-friendly behaviours. In the process the role of social and behavioural sciences are critical due to complex human factors including cognitive, affective and overt expression of green occupational actions.

It is on this basis that a green growth project was developed to promote new generations of green job creators capable of identifying and taking advantage of green business opportunities (Farinelli et al., 2011). Considering that economic motives have been at the source of resources depletion, the argument holds that a green business can promote economic growth, poverty alleviation and environmental sustainability. Due to persistent unemployment amongst youths, the government introduced entrepreneurship programmes to promote and enhance skills acquisition, ease the spirit of creativity, self-reliance and self-independence (Neneh, 2014), and ecopreneurship is fundamental among these options. It is on the foregoing that Youth Outreach Programme developed a green agripreneuship project for youths from selected communities of Mezam, North West Region. The first phase of the project was to train young people to develop a spirit of self-reliance and focus was on greening the environment by getting rid of all chemicals being used in blue collar activities in agriculture. The programme was designed to empower youths to refrain from brown practices in agribusiness activities and the training and education programme was designed to reinforce green attitudes towards green growth, and motivation as a prerequisite to green job creation. Following the training, the current study intends to investigate if the green-growth training can determine green job attitude and motivation of young people into green agripreneuship ventures.

2.0 LITERATURE REVIEW

Despite the fact that there is no widely agreed definition of green jobs, available conceptualisations have laid emphasis on those jobs that produce environmentally beneficial goods and services (Borel-Saladin, 2013; UNEP, 2011). These are jobs that help to reduce the consumption of energy and raw materials, decarbonize the economy, protect and restore ecosystem and biodiversity and minimize the production of waste and pollution (Khalid & Nayma, 2013). These activities target sustainability by equitably exploiting environmental resources and taking into consideration the interest of both present and future generations. Herren et al. (2012) defined green jobs as a spectrum of decent jobs that are created by green agriculture farming practices stretching from on-farm job creation to input supply chains and post-harvest field-to-market value. In certain contexts, green jobs have been perceived as blue collar job since they are generally associated with manual labour.

Though they mostly target livelihood and environmental quality, greening economies does not end with petty and small scale business activities since giant enterprises are also involved in different green activities. Therefore, a green-collar worker is a worker who satisfies the demands of green development and sustainability in any occupational context. Despite scepticism about the relevance and impact of green jobs on sustainability drives, it is an employment promoting facility with great potentials for job creation in global and local contexts (Borel-Saladin, 2013; Fomba, 2012; 2016). Fostering decent jobs within the green growth paradigm lies on the fundamental principles of environmentalism and social protection, which are key threats to dominant economic interests posing threats to green job initiatives. Green jobs are elastic as the scope of green ventures, and mitigate environmental impact with regards to business operations in different sectors. Therefore, green jobs represent an important new category of work force opportunities since they are relatively high quality jobs, with relatively low barriers to entry (Pinderhughes, 2007). This create labour market shift and justifies high demand for green skills suggesting capacity building as a strategy for the promotion of green job start-up.

It is evident that gains and losses equally abound in green jobs, since in the process, the balance between job losses in environmentally unfriendly activities and job gains in green activity is an important consideration when calculating the net effect of going green. Despite the fact that particular emphasis was placed on policy measures necessary to ensure that newly created green jobs offer the best possible working conditions which are in the formal sector (IWG, 2013), but unfortunately not the case particularly in Sub Saharan Africa. Green collar jobs notwithstanding perceived benefits have their complexities since they are generally blue collar activities with the exception of technical blue collar jobs. They are often carried out by workers with low level education who are vulnerable to exploitation, and this draws in the question of training in developing a green collar mind set. Pingerhuges (2006) advised that in order to ensure green collar job benefits, workers with limited education and skills need training for green collar jobs in schools as well as initiating work force training programs. The problem lies in the fact that some of the jobs are green but not decent because they are often characterised by difficult nature of the jobs and different experiences of workers, particularly in terms of compensation and exposure to safety and health hazards. Furthermore, they include low-wage jobs such as installing solar panels, and jobs in ship breaking or electronic waste recycling where occupational safety is inadequate or child labour is used (Khalid & Nayma, 2013). This is why job green as decent job initiative depends on

mindsets and pro ecological behaviours capable of promoting environmental quality, health and safety.

In the process of green job promotion, building capacities of actors is perceived as a rewarding strategy towards green growth dispositions. Rupert et al. (2018) observed that in the transition to a green economy, skills development programs should for retraining, upskilling, or adaptation training of existing workers for enterprises across sectors, and training new workers and skilled workers and professionals in different sectors. UNEP (2011) defined training as a process of building abilities, relationships and values that will enable organizations, groups and individuals to improve their performance and achieve their development objectives. In a similar view, Nwazor (2012) perceived capacity building as a means of planning for people to acquire knowledge and advanced skills that are critical to a country's economic growth, its standard of living and individual empowerment. To Falxa-Raymond et al. (2013) soft skills such as attitudes must be viewed as important employment characteristics on par with more technical green jobs. Melin (2001) expands the dimension of the concept to the continue process of strengthening abilities to perform core functions, solve problems, define and achieve objectives and understand and deal with development needs. In context, it implies increasing knowledge and skills as well as consolidating beliefs, feelings and necessary tendencies capable of promoting the spirit and values of green collar jobs.

Although there is emerging literature on training intervention in the green job context, there are just a few systematic studies realised. Brown (2015) reported the strength of capacity building in promoting green skills as a measure of knowledge and behaviour change. This concurs with Noor et al. (2015) that sustainable education on green venture showed a statistically significant relationship with inclination towards green collar job creation. The results of Fomba (2012) indicated the influence of capacity building in ecological entrepreneurship in local context. Falxa-Raymond et al. (2013) found that employees acquired more knowledge and skills and nurtured the motivation to remain in green jobs. Furthermore, the green workers were able to articulate a desired career path beyond their current positions. Patidar and Patidar (2015) equally observed a significant relationship between education and attitude towards organic farming. This supported the study Fomba (2016) on the relationship between training and green economy disposition. Although some of these studies are not directly on green job motivation, they have lessons for the promotion of green jobs.

In an ecologically relevant study, Fomba (2012) reported that training had a significant effect on attitude as a factor in ecopreneurship behaviors. This is important due to the recognition that green collar job creation is already an entrepreneurial activity and ecological entrepreneurship is a dimension or green growth development. Falxa-Raymond et al. (2013) reported that most employees had a positive attitude toward aspects of the environment following training in green jobs. Though participants were already green job holders, they found more attractions in green occupations following capacity building. In another study, Shiri et al. (2014) found knowledge as a factor in start-up drive as young people who were not aware of the importance of green growth and green jobs portrayed unfavorable attitudes and deployed resistance towards blue collar jobs. But Noor et al. (2015) found that cultivating skills in green venture led to elemental shift in attitude for necessary deep changes in green business practices. In one of the recent studies, Fomba (2016) observed a significant relationship between capacity building and green economy attitudes. Though not directly on green collar jobs, this is an indicator considering that green collar jobs exist

within the broader context of green growth paradigm. It would be noted that moderate attitude, was recorded with the study of Borhade et al (2016) following empowerment of cotton farmers on attitude towards organic manure practices.

The relationship between social capital on green behaviour has been of importance to venture dispositions, and green job creation in particular, which has been captured by the concept of subject norms. This is due to the understanding that social pressure can become a trigger or a barrier in the development of an ecological entrepreneurship career, depending on exigencies of the social environment (Liñán, Battistelli and Moriano, 2008). With regards to ecological entrepreneurship it was found that social norms were able to predict green job motivating of young people in an indigenous context and green economy disposition (Fomba, 2012; 2016). This no doubt reflects the importance of social capital in driving green jobs where significant others are likely to mount pressure to perform or abstain from a green venture.

Attitude has enormous influences on the adoption of innovation and in promoting the new economic order which is critical in balancing economic and ecological values (Farinde et al., 2005). The basic assumption holds that the motivation to engage in venture action occurs as a consequence of some inner belief or pressure precipitating the event, and that an individual's response depends on perceptions of available alternatives (Liñán, Battistelli, and Moriano, 2008). In a cross-cultural assessment, Fitzsimmons & Douglas (2005) found that venture attitude was significant in explaining antecedents of start-up motivation though with some variation across countries. Despite the fact that the results are not on green jobs it is probable that green collar attitude can impact significantly on green motivation. Herath and Wijekoon (2013) observed that strong attitude in organic farming propelled participants to get involved in more risks, as compared to those with lukewarm attitude towards organic farming. This no doubt shows the strength of attitude in influencing venture intent especially in risk taking dispositions.

Identifying the research gap the surround the present study is necessary considering that much has been done but in related context and more still have to be realised. The present study on training intervention within the green growth paradigm and green collar job motivation in particular adds to the body of knowledge in the domain of green economy, policy and green collar practices. Considering that the transition to green economy has attracted policy discourses from different circles as a result of discontentment drawn from dominant economic interest and pressure (UNEP, 2011), much is to be desired in in terms of research and practice in Cameroon. Despite the plea by MINPAT (2009) that unsustainable exploitation of ecological resources are responsible for loss of biodiversity and has enshrined green economy values into its white paper as responsive measures of sustainability opportunities have not been given to researchers of green growth to explore the intricacies and put on the table. Review shows that literature is dominantly found in America, Europe, and Asia and this has implications to redouble efforts on research in-context.

Although currents efforts are commendable, rigorous research and systematic studies are yet to be carried out in on green jobs in Cameroon to reinforce Government policy. This draws from the recognition from the best of the researcher's knowledge that no study has been carried out in Cameroon on green training and green collar job motivation of young people, while this is essential to inform policy and practices. In order to fortify the gap, most of the studies are in the domain of health, geography, environmental sciences and agriculture and not in ecological or environmental psychology where mindset green, attitude and motivation are critical individual factors in the

realisation of green projects i.e transforming brown into green. These show proof of the contributions of psychological sciences to the domain of ecological jobs through green jobs. Apart from environmental and situational forces, personality deficiencies such as low drive towards green initiatives appears to have helped in the reinforcement of conventional brown practices that deplete ecological resources and this should be a focus of investigation particularly in the traditional sector. With the recognition that there is paucity of studies in training and green collar job ventures, the paper makes a unique contribution by providing a multifaceted account of green job training as a predictor of green collar job motivation of trainees in agripreneurship venture.

Theoretical Model

The challenge of human-induced climate change has led to renewed interest in sustainable growth as a means to promote human development (Bowen, 2012), and this is customary by identifying responsive inter-disciplinary strategies that can explain behavioural patterns necessary for catalysing green jobs. Despite extensive use of quantitative techniques to examine the adoption of agri-ecological measures, behavioural approaches such as attitude-based methods have been used to predict responses to emerging environmental policy (Menozzi et al., 2015). Ajzen (1991), proposed the Theory of Planned Behaviour (TPB) as a social psychology framework capable of explaining behavioural propensities in different contexts. It upholds that people are rational organisms and engage in systematic actions that will enable them have a productive outcome such as motivation. To Ajzen (1991) a central factor in the theory of planned behaviour is the organism's intention to perform a given behaviour since intentions are assumed to capture motivational factors that influence a given pattern of behaviour. For instance, it recognises venture motivation as a precondition for venture action, which has been used to analyse green job attitude and motivation in the present study. Although TPB explains predisposition in terms of attitude, social norms, and perceived behavioural control and motivation, the current use of the theory omits the dimension of perceived behavioural control.

Attitude refers to attraction toward green jobs and a more favourable attitude will positively influence green job deposition and this is the case with motivation. Subjective norm is the subject's perception of other people's opinions of the proposed behaviour, and understood as an individual's assessment of social pressure to perform or not to express green action. Motivation is the individual's preparedness to express a particular action, and is therefore a predictor of green job behaviour (Fomba, 2012). Thus, when an individual's attitude toward green collar job becomes more favourable, the individual will likely express behaviours directed at green job, which reflect his or her underlying attitude. Measures of attitude, social norms and intent (Liñán, Battistelli, and Moriano, 2008) are derived from components of the theory, and this has been reliably used across the globe. In-context, the theory and measures have been used in Cameroon to explain and measure behaviours in different contexts, particularly in ecological entrepreneurship (Fomba, 2012). These are evidences that the theory is a relevant framework for understanding green collar job motivation of trainees.

The foregoing literature elucidates emerging interest in the context of green economy and green collar job motivation drawn from training intervention. While individuals subjected to education and training may have different psychological make-ups with differing economic and social backgrounds, it is expected that capacity building stands to influence green attitudes and facilitate

start-up motivation. Furthermore, attitude and social pressure appears to be a moderating force influencing green job motivation, and literature suggests that attraction to green jobs will no doubt facilitate disposition to green job drives. Based on the foregoing discussion, the following hypotheses were proposed for the investigation:

- i. Training intervention does not significantly influence green job motivation of participants.
- ii. Training intervention and attitude do not significantly influence green job motivation of participants.
- iii. Training intervention, attitude and social pressure do not significantly predict green job motivation of participants.

3.0 MATERIALS AND METHODS

The ex-post factor study assessed the impact of training intervention and skills development on green job dispositions following successive training exercises. A total of 125 participants (n= 71 females, 56.8%; 54 males, 43.2%), were drawn from the training programme. Majority of participants fell within 26-30 age range (43.2%), unmarried (77.4.0%), mostly high (45.6%), secondary (33.6%) school leavers, and some University graduates (11.2 %). Primary school leavers made up just 09.6% of the sample. With regards to occupations of parents, majority were self-employed (fathers, 71.7% and mothers, 51.2%), and active in full and part time agribusiness activities. While only 18% of participants own personal agribusiness, 82% participate through family assistance, and they all acknowledged the use of agro-chemical farm inputs. Questionnaires were distributed to all the 138 trainees but 125 were suitable for analysis giving a response completion rate of 90.89%.

With regard to data gathering the instrument made use of a seven-point Likert-type scale ranging from Very strongly disagree (1) to very strongly agree (7) and this was designed to assess green job attitude, social pressure and green job motivation. Training was measured by a locally constructed scale, 6 items, derived from literature (Farinelli et al. 2011; Fomba, 2016; UNEP, 2011). This was a structured subscale to collect information on green job training, green skills, behaviour change, career training, marketing skills and business plan. The scale's internal reliability coefficient was determined ($\alpha = 0.74$). The measures used for attitude, social pressure and green job intent were dimensions of the Entrepreneurship Intention Questionnaire (Liñán et al, 2008). The sub scale for attitude had items exploring attraction to green jobs, interest, preference, satisfaction and advantages with an internal reliability coefficient ($\alpha = 0.72$). The subscale for social pressure adopted that of social norms, 3 items, exploring approval of friends, family and colleagues, with Cronbach alpha ($\alpha = .66$). The subscale for green job motivation had items exploring green job readiness, start up efforts, start-up certainty, determination, career goal and high level intention, and reliability analysis ($\alpha = 0.86$). The aggregate alpha for the instrument was .74, which is acceptable. Open-ended items were used to capture qualitative information. The information was entered into Statistical package for Social Sciences (SPSS) software, which was used to run the analysis. Apart from descriptive statistics, correlation and hierarchical regression were the main tools to analyse the information.

4.0 FINDINGS

This section on findings starts with the presentation of descriptive statistics. Mean and standard deviation of indicators depict the various strengths with regards to capacity training and green job motivation following the training exercise (See Table 1). Green skills (M=6.09; SD=1.19), behavior change (M=5.98; SD=1.25) and green career disposition (M=5.91; SD=1.19) were reported as competences acquired during the training. In addition, participants showed a high level of attitude (M=23; SD=.98) and interest (M=6.43; SD=.95). Pressure from family (M=6.02; SD=1.13) and mates/colleagues (M=5.54; SD=1.08) were identified as key factors in social influence with regards to green business motivation. Green collar job drive was very high among participants and this was demonstrated by readiness (M=6.23; SD=.98) and start-up efforts (M6.43; SD=.95) amongst participants.

Table 1: Descriptives of Indicators of Variables N=125

Green training-intervention			Green collar job attitude		
Indicators	Mean	Std. D	Indicators	Mean	Std. D
Green awareness	5.02	1.406	Attraction	6.23	.985
Green job skills	6.09	1.197	Interest	6.43	.950
Behaviour change	5.91	1.250	Preference	5.41	1.369
Green career	5.98	1.191	Satisfaction	5.98	1.285
Marketing skills	5.68	1.443	Advantages	5.64	1.222
Business plan	4.77	1.790	-	-	-
Green collar job motivation			Social pressure		
Indicators	Mean	Std. D	Indicators	Mean	Std. D
Readiness	6.23	.985	Friends pressure	5.32	1.61
Start-up efforts	6.43	.950	Family pressure	6.02	1.13
Start-up certainty	5.41	1.369	Approval colleagues	5.54	1.08
Determination	5.98	1.285	-	-	-
Career goal	5.64	1.222	-	-	-
High intention	6.23	1.362	-	-	-

Results of relationships among study variables have been presented in Table 2. Training correlated positively and significantly with green job attitude ($r=.563$), social pressure ($r=.234$) and green job motivation ($r=.771$), $p<0.01$. a significant association was also reported between green job attitude, $r=.273$, and green job motivation, $r=.775$, $p<0.01$.

Table 2: Bivariate Correlation and Descriptives

Variables	1	2	3	N	Mean	Std. Dev.	Alpha
Training intervention (1)	1			123	33.60	5.326	.74
Green job attitude (2)	.563**	1		125	29.70	3.939	.72
Social pressure (3)	.234**	.273**	1	125	16.88	2.851	.66
Green job motivation (4)	.771**	.775**	.343**	125	35.61	6.641	.86

** . Correlation is significant at the 0.01 level (2-tailed).

Test of Hypothesis

In the first step, hierarchical regression was performed to test the relationship between training and green job motivation (See Table 3). Training was reported as having significant influence on green

job motivation of participants, $\beta=.771$, $\Delta R^2=0.595$; $t=13.329$, $P=0.00$, and training was able to determine variation in green job motivation of participants at 59.2% ($R^2=0.59.2$). When training is at zero, the b-value is at 3.144, and a one-unit increase in training will lead to a corresponding increase in the level of green job motivation of participants at .968. Consequently, H_a was accepted confirming training intervention as a predictor of green job motivation. In the second model, attitude was added to training as a predictor of green job drive (See Table 3). According to analysis the two variables, training ($\beta=.487$, $t = 9.16$), and attitude ($\beta=.504$, $t = 9.466$), $P=0.00$ were able to determine the variation in green job motivation at 76.8% ($R^2=0.768$). The increase from 59.2% to 76.8%, implies that attitude alone is able to predict the variation in the outcome measure 17.3% ($\Delta R^2=0.173$). When training and attitude are at zero green job motivation is 10.111 and any unit increase for the training and attitude will yield a corresponding increase in level of motivation at .612 and .849 respectively. Consequently, the null hypothesis is rejected. Step three witnessed the addition of social pressure to training and attitude as predictors of green job motivation (See Table 3). The combination of the three predictors was able to account for the variation in participants green job motivation at 776%, indicating a slight increase from 76.8% to 77.6%. But social pressure alone was unable to predict variation in participants green job motivation, $\Delta R^2=0.008$. Though the model is significant, it is evident that social pressure cannot significantly predict green job motivations.

Table 3: Predicting Green Job Motivation

Variables	Std. Error	β	t- values	Sign. level	
Step 1					
Constant	3.144	2.472	1.260	.210	
Training intervention	.968	.073	.771	13.329	.000
Step 2					
Constant	-10.111	2.341	-4.320	.000	
Training intervention	.612	.067	.487	9.160	.000
Green job attitude	.849	.090	.504	9.466	.000
Step 3					
Constant	-12.343	2.557	-4.827	.000	
Training intervention	.599	.066	.477	9.045	.000
Green job attitude	.815	.090	.483	9.041	.000
Social pressure	.217	.107	.093	2.039	.044

Step 1: $R= 0.771$; Adj. $R^2=0.592$; $\Delta R^2=0.595$; F-value = 177.672; Green job intent ; $p < 0.01$

Step 2: $R= 0.876$; Adj. $R^2=0.768$; $\Delta R^2=0.173$; F-value = 29.371; Green job intent; $p < 0.01$

Step 3: $R= 0.881$; Adj. $R^2=0.776$; $\Delta R^2=0.008$; F-value = 4.156 ; Green job intent; $p < 0.01$

Results show that all the predictors, capacity enhancement and attitude were able to determine variation in the outcome variables. Though the third model was significant, social pressure as an individual variable could not significantly influence green job motivation of participants.

Discussion

The study assessed the pertinence of training intervention on green collar job motivation of trainees. It would be noted that the investigation emerged as one of the scarce studies in estimating behavioural predictors of green collar jobs within green growth paradigm. Results of the first hypothesis unveiled capacity enhancement as a predictor of green motivation. This is consistent with the findings of Lepoutre et al. (2010) on venture education and propensity to act, and Brown

(2015) on capacity building and behaviour change. Findings corroborates with studies in local context between capacity enhancement and ecological entrepreneurship and green economy (Falxa-Raymond et al., 2013; Fomba, 2012; 2016). It has been shown that training, creating awareness and developing green business skills are key determinants of green jobs, which are at the same time capable of alleviating poverty and minimising ecological losses. The present results could also be explained from the understanding that traditional approaches to blue collar activities such as farming with the conspicuous use of chemical fertilizers has been perceived as dangerous to soil nutrients and consumers as well. This is a social and cultural belief drawn from ignorance, recognising capacity education and training as optimistic measures of promoting drives towards green collar jobs.

Results of the second hypothesis indicated that the predictors (training and green collar attitude) showed an increase in the strength of the model by predicting green job motivation. Attitude contributed significantly to variation in motivation, and it is obvious that the more trainees are exposed to training exercises, the more their positive feelings and green job dispositions are increased. Results are consistent with studies on training and green business attitude, green economy feelings and disposition towards the use of organic manure (Borhade et al., 2016; Falxa-Raymond et al., 2013; Fomba, 2016; Noor et al., 2015). Findings no doubt suggest the criticality of information on attitude change, and such results can only be achieved through green growth capacity building programmes. From the analysis, green growth development, and in particular knowledge and skills in crafting green collar jobs could be highly responsible for determining motivation to create green jobs. All the necessary green economy provisions should be put in place to facilitate green collar job creation and particular attention should be paid to young people who are at risk of unemployment and underemployment.

From the analysis, both training and attitude played a positive role in green job motivation, but the inclusion of social pressure in the third hypothesis was significant. Again, social pressure could not account for the variation on green collar job motivation. This contradicts local findings on social norms and relationship with ecological entrepreneurship and green economy (Fomba; 2012; Fomba, 2016). Social capital is a cultural value, and although it could not predict green job motivation it remains a social capital base in influencing socio-economic activities. Findings suggest that young people might have attain maturity with a spirit of independence and self-reliance, and feel they can no longer yield to social pressure in terms of occupational choices with associated values. This may also mean the eradication of endemic psychological dependence on needs provision from relations and society as a whole.

Analysis also portrayed attitude and social norms as significant predictors of green job intent, though the level of significance was weak. The significant results between attitude and green job motivation agrees with prior observations of inner beliefs in business venture and cross-cultural settings (Liñán, Battistelli, and Moriano, 2008), organic agri business venture (Herath & Wijekoon, 2013), and in green economy behaviour (Fomba, 2012; 2016). Recalling that attitude is a key determinant of human behaviour, it is clear that it is a dynamic mechanism, capable of effecting behaviour change in favor of green job venture. Anyway, social pressure was found as a weak predictor of green job motivation, suggesting that the social capital base of young people is not potent enough to drive them into green ventures. This is at variance with the recognition of social pressure as a core human belief (Liñán, Battistelli and Moriano, 2008). Results contradict prior findings in the green economy sector (Fomba, 2012; 2016), which established a significant

relationship between social norms and motivation. The failure of the affective variable as determinant of variation in green intention of prospective green workers may also be due to the spirit of self-reliance being advocated as a measure of youth inclusion. This could be attributed to the fact that young people are already sophisticated with unproductive values of solidarity within family and societal circles and strive to make their own destiny through work life.

5.0 CONCLUSION AND RECOMMENDATIONS

The present study assessed the influence of training intervention green job start-up motivation of trainees in a green project in local context. Results provided some insights into strategies that can be used to cultivate ecologically friendly mindsets and behaviors capable of promoting sustainable environmental values. Although this happens in various occupations to ensure inclusive development interest has been on agro-ecological projects. Analysis confirmed the strength of training and attitude on green collar job motivation, but indicated the weakness of social pressure in predicting green collar job dispositions. The study has made critical theoretical and empirical contributions to the growing domain of green collar job within the growing area of green economy. Creating green collar jobs should be a purposive activity and this justify the use of the Theory of Planned Behaviour (Aizen, 1991) for the analysis of green collar job dispositions The variables were statistically relevant and measures derived from the theory showed recommendable psychometric properties and attracted significant alphas with local samples.

There has been much congruity at the level of the hypothesized relationships implying the validity of the study model, though surprisingly, social pressure did not turn out as a significant predictor of the variation in green job motivation of trainees. Apart from swelling the existing body of knowledge, results add value to existing practices particularly in upgrading green skills for young people. This is a move towards the valuation of green growth, and creation of green jobs in local context. This is feasible with the understanding that green-collar jobs potentially or currently exist in every single sector of the economy, and range from entry-level to advanced-skills (Taryn & Tammy, 2010). It therefore stands to extend its scope beyond agricultural green initiatives to sectors such as building, road construction, energy, consumption and designs. Furthermore, it shows that green economy is not only a sensitive area of inclusivity, but also an emerging area of interest having enough force in promoting sustainable development jobs for young people at risk of unemployment and poverty.

One of the outcomes of the investigation is the validity of training exercise that has provided positive outcome as per the goal of the eco-job initiatives. Since one of the features of the capacity enhancement exercise was to create a business plan, it is therefore essential to encourage implementation of results considering that trainees possess a favourable attitude, and the much required start-up intent. From close analysis it is increasingly clear that education and skills, attitudes, and behaviour are crucial for sustainable and inclusive growth (Rupert et al., 2018). Recognising the fact that sustainability demands changes in human behavior, the shift from brown to green jobs is no longer the business of natural sciences alone, but requires synergistic efforts with the integration of social and behavioural sciences. In this respect, findings demonstrated the potential value of attitudinal measures in predicting individuals who will want to create a green job in the near future. This is why green skills development must be integrated into wider training and skills development policy, rather than being seen as additional to or separate from other forms

of skills development (AWG, 2013). Although green businesses depend on capacity building it is rather unfortunate that as a behaviour change mechanism, behavioural dimensions of green collar jobs are surrounded by scepticism due to perceived abstractions of psychological and cultural technologies. This is also aggravated by the monolithic mindsets of some scientists in the natural and environmental sciences, who consistently question the place of the social and behavioural sciences in green business debates and analysis.

In order to promote a trans-disciplinary platform for green job creation, a change of perception and prejudices requires critical attention, commitment and good faith at all levels. Khalid and Nayma (2013) advised that in order to assess the contributions of green sectors and activities to national economies, methodologies and analytical tools that integrate complex interactions between socio-economic and environmental fields are indispensable. This is a measure of sustainable development, and since sustainable development implies constant and steady economic growth as a result of acquisition of knowledge and skills used for solving national problem that adding value to lives and property (Nwazor, 2012), it needs to be encouraged in green collar job venture with the last energy. The present emphasis also skates over environmental justice and sustainability to the perception of green jobs as a measure of poverty alleviation and wealth creation through green business motivation in any sector of the economy.

The study suffers from some shortcomings that must be taken into account when appreciating the outcome of the analysis in order to redress them in future investigations. Results of this study are indicative and interpretation and generalization should be cautious considering that samples were drawn from a limited circle, Mezam Division and with young people. Furthermore, the study was quantitative and it would be essential to add values to future studies using in-depth qualitative measures. As an ex post factor design, based on participants' participation in a training initiative, a pre-and post-test could have been more appropriate for a proper impact assessment. Nevertheless, the research gaps in the areas of green growth and green jobs are visible, but the present attempt stands to spur more research activities capable of throwing more light on the nature of green jobs, perceptions and motivations of young people. Such research ventures should focus on innovation and ecopreneurship, and find out strategies capable of growing a resilient generation of future green workers, particularly in agribusiness. The strength of the study also lies in the fact that it sets out to add value by giving useful insights that may help prospective workers and trainers to change from brown to green practices. Development agents should also get into research in green jobs in their respective domains and explore socio-cultural, economic and psychological functions of the activities as catalyzers of green job motivation.

REFERENCES

- African Union (2011) A Green Economy in the Context of Sustainable Development: What are the implications for Africa?, Meetings of the AU Conference of Ministers of Economy and Finance and ECA Conference of African Ministers of Finance, Planning and Economic Development, 24-27 March, Addis-Ababa
- Assis, K. & Ismail, I (2011) Knowledge, attitude and practices of farmers towards organic farming, *International Journal of Ecological Research*, 2(3), 1-6
- Attitudes toward Sustainability and Green Economy Issues Related to Some Students Learning Their Characteristics: A Preliminary Study, *Sustainability*, 6, 3584-3503
- Borel-Saladin J. M (2013) The impact of the green economy on jobs in South Africa, *South African Journal of Science*, 9(10) 1-4
- Borhade, S.M, Kale , N and Shambharkar, Y.B (2016) Determinants of knowledge about organic manure practices by the cotton and soybean farmers in Akola district, *Karnataka J. Agric. Sci.*, 28 (4) 550-553
- Bowen, A. (2012) “Green” Growth, “Green” Jobs and Labor Markets, Policy Research Working Paper No. 5990. World Bank.
- Brown, M (2015) Developing and using green skills for the transition to a low carbon economy, *Australian Journal of Adult Learning*, 55 (2) 182-202
- Falxa-Raymond, N., Svendsen, E. and Campbell, L.K. (2013) From job training to green jobs: A case study of a young adult employment program centred on environmental restoration in New York City, *Urban Forestry & Urban Greening*, 12, 287–295
- Farinelli, F., Bottini, M., Akkoyunlu, S. and Aerni, P, (2011) Green entrepreneurship: the missing link towards a greener economy, *ATDF Journal*, 8 (3/4) 42-48
- Fomba E. M. (2012) Building ecological entrepreneurship: creating environmental solutions based on the cultural realities and needs of local people, *Journal of Environmental Investing*, 3 (2): 43-62
- Fomba, E. M. (2016) Promoting green economy as behavioral element among youths in Cameroon (203-226) In Ayuk, E.T., Effiom, Oku, E.E, Asubonteng, O. E., and Nutakor, P. , *Promoting green economy: implications for natural resource management, food security and poverty reduction in Africa*, Accra: UNU-INRA
- Ganpathi, R. (2016) A study on dimensions influencing the students’ entrepreneurial intention, *Journal of Management Research and Analysis*, 3(1):1-6
- Herath, S and Wijekoon, R (2013) Study on attitudes and perceptions of organic and non-organic coconut growers towards organic coconut farming, *IDESIA (Chile) Mayo-Agosto*, 31(2) 5-14
- Herren, H.R., Bassi, A. M., Tan,Z., and Binns, W.P. (2012) *Green Jobs for a Revitalized Food and Agriculture Sector*, Rome: Food and Agriculture Organization

- Inter-Agency Working Group [IWG] (2013) Meeting skill needs for green jobs: Policy recommendations, Inter-Agency Working Group on Greening Technical and Vocational Education and Training and Skills Development, International Labor organization, Geneva
- Khalid M. B. and Nayma, I. (2013) Prospect and Potential of Green Jobs towards Green Economy in Bangladesh: A Situation Analysis, *Global Journal of Management and Business Research*, 13 (4) 14-25
- Lepoutre, J., Tilleuil, O. & Crijns, H. (2010). A new approach to testing the effects of entrepreneurship education among secondary school pupils, D/2010/6482/01 Vlerick Leuven Gent Working Paper Series No. 2010/01
- Liñán, F., Battistelli, A. and Moriano, J. (2008) Entrepreneurial intention in Europe, In Moriano, J and Gorgievski, M (Eds), *Teaching Psychology of Entrepreneurship: Perspectives from Six European Countries*, (pp 21-44), Madrid: Universidad Nacional de Educación a Distancia.
- Menozzi, D., Fioravanzi, M. and Donati, M. (2015) Farmer's motivation to adopt sustainable agricultural practices, *Bio-based and Applied Economics*, 4 (2) 125-147
- Micangeli, A., Naso, V., Michelangeli, E., Matrisciano, A., Farioli, F. and Belfiore, N.P. (2014) Ministry of the Economy, Planning and Regional Development (2009). Cameroon Vision 2035: Neneh, B., N. (2014) An Assessment of Entrepreneurial Intention among University Students in Cameroon, *Mediterranean Journal of Social Sciences*, 5 (20) 542-552
- Noor, H., Hasliza, A., Ramayah, T and Syed A (2015) Green entrepreneurship inclination among Generation Y: the road towards a green economy, *Problems and Perspectives in Management*, 13 (2) 211-218
- Nwazor, J. C. (2012) Capacity Building, Entrepreneurship and Sustainable Development, *Journal of Emerging Trends in Educational Research and Policy Studies*, 3(1):51-54
- Patidar, S. and Patidar, H. (2015) A Study of Perception of Farmers towards Organic Farming, *International Journal of Application of Innovation in Engineering & Management (IJAIEM)*, 4 (3) 269-277
- Pinderhughes, R (2006) Green Collar Jobs: Work Force Opportunities in the Growing Green Economy Race, Poverty & the Environment, retrieved on 10/06/16 at <https://www.seattleu.edu/media/cejs/files/.../RaquelPinderhuges.pdf>
- Rupert, M., Shanti, J. and Brajesh P. (2018) *Education and Skills for Inclusive Growth, Green Jobs and the Greening of Economies in Asia: Case Study Summaries of India, Indonesia, Sri Lanka and Viet Nam*, Manila: Asian Development bank
- Shiri, N., Faghiri, M., Pirmoradi, A. & Agahi, H. (2014) Attitudes of agricultural extension workers towards organic farming in Iran, *Journal of Organic Systems*, 9 (1), 5-15
- UNEP (2008): Green Jobs: Towards Decent Work in a Sustainable Low Carbon World, Geneva: United Nations Environment Program.

United Nations Environmental Programme [UNEP] (2011), “Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication - A Synthesis for Policy Makers”, retrieved on 26/17/2018 at www.unep.org/greeneconomy

Warren, B., Katono, I. & Isabalija, R. (2010). The Impact of College Entrepreneurial Education on Entrepreneurial Attitudes and Intention to Start a Business in Uganda, Paper presented at the Entrepreneurship in Africa Conference, 1 – 3 April, Syracuse, New York

License

Copyright (c) 2024 Fomba Emmanuel Mbebeb



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/). Authors retain copyright and grant the journal right of first publication with the work simultaneously licensed under a [Creative Commons Attribution \(CC-BY\) 4.0 License](https://creativecommons.org/licenses/by/4.0/) that allows others to share the work with an acknowledgment of the work's authorship and initial publication in this journal.