The Impact of Entrepreneurial Intentions & Actions on Environmental Sustainability: The Case of SMEs in Cameroon.

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Abstract
The importance of corporate social responsibility is shaping investment decisions and entrepreneurial actions in diverse perspectives. The rapid growth of SMEs has tremendous impacts on the environment. Nonetheless, the economic emergence plan of Cameroon has prompted government support of SMEs through diverse projects. This saw economic growth increased to 3.8% and unemployment dropped to 4.3% caused by the expansion of private sector investments. The dilemma that necessitated this study is the response strategy of SMEs operators towards environmental sustainability. This study, thus seeks to examine the effects of entrepreneurial intentions and actions on environmental sustainability. The research is a conclusive case study design supported by the philosophical underpinnings of objectivism ontology and positivism epistemology. Data was sourced from four hundred (400) SMEs operators purposively sampled from the Centre and Littoral regions of Cameroon using structured questionnaire. Data was analysed using the Structural Equation Modelling technique with the aid of statistical packages including: SPSS 24 and AMOS 23. The study revealed that entrepreneurial action has weak positive statistical significant impacts on environmental sustainability; whereas entrepreneurial intention has strong positive statistical significant effects on environmental sustainability. Entrepreneurial intention comprised of self-efficacy and perceived control whereas, entrepreneurial actions involved entrepreneurial alertness and uncertainty. This study concludes that entrepreneurs in Cameroon have sustainable intentions to protect the environment but; the current actions taken are inadequate. This research recommends that entrepreneurs should enhance efforts toward attaining the state of genuine sustainability.

Keywords: Entrepreneurial Intention, Entrepreneurial Actions, Cameroon, Genuine sustainability.

1.0 Introduction:
The importance of SMEs in every economy is indisputable as they constitute significant proportion of economic activities. Like most economies, SMEs in Cameroon contribute not less than 50 % of GDP. In cognizance of the extensive importance of SMEs in Cameroon, the government has consistently put in measures to support their progress. According to (National Institute of Statistic, 2018) over 35.1% of entrepreneurs in Cameroon are in Douala while 23.9% are in Yaoundé respectively. Over 61,366 SMEs were created in Cameroon between 2010 and 2016 of which 59,200 were local ownership while 2,166 were foreign owned. It is important to note that sustainable economic growth can only be achieved through sustainable actions (Huang, 2018). The objectives of the government to promote SMEs are to reduce unemployment and facilitate economic emergence of 2035 (African Development Bank, 2007). Entrepreneurship is a defining factor for economic growth (Thurik, 2003; Michael, 2015). To this effect, this study is aimed at examining the impact of Entrepreneurial intentions (EI) and actions (EA) on environmental sustainability involving 400 Entrepreneurs in Cameroon.

2.0 Theoretical Literature Review
2.1 Theories on Entrepreneurial Intention
2.1.1 The Theory of Shapero’s Entrepreneurial Event (SEE)
The Theory of Shapero’s Entrepreneurial Event (SEE) (Shapiro & Sokol, 1982) investigates factors influencing entrepreneurial intentions as a result of the interaction between culture and social factors.
Perception of desirability, propensity to act and perception of feasibility are key factors influencing entrepreneurial intention (Sokol, 1982). This model explains entrepreneurship intention based on personal values, attitudes, and feelings (Augustine, 2016).

2.1.2 The Theory of Planned Behaviour (TPB)
Emerging from the Theory of Reasoned Action, the Theory of Planned Behaviour (TPB) explains that intentions are expressed by attitude (Planned Behaviour), Perceived Behavioural Control (PBC) and Subjective Norms. The Theory of Planned Behaviour states that behavioural achievements depend on both motivation and ability (Azjen., 1987). Attitude relates to the means through which a person has favourable or unfavourable behaviour for the sake of behaviour interest (Azjen, 1991), whereas, subjective norms consists of demographic, personality traits, and external influences that could influence certain behaviour. The demographic indicator assumed that people with similar backgrounds share similar characteristics and express similar behaviours (Xie, 2014).

Subjective norms are demonstrated through demographic characteristics. Males have stronger intentions than females (Crant, 1996) as they show more interest in owning businesses than females. Entrepreneurial intentions for females are often low because of their low self-efficacy to start a business (Fielden, 2004). Age influences the way people think and behave. Adult entrepreneurial intentions are influenced by childhood competence (McClelland, 1961). By this, entrepreneurial desires are expressed from childhood. In addition, the middle-class are more likely to start a business compared to the high-class (Bhide, 2000). Legal rules, government support, and other important factors influence entrepreneurship (Stephen, Urbano, & Hemmen, 2005). Shapero & Sokol (1982) argued that social environmental factors act as modifying variable that influences individual attitudes and intentions (Shapero, 1975). Subjective norms are displayed in personality traits where one must possess and exhibit stable psychological characteristics and produce certain behaviours that people approve or disapprove (Xie, 2014), (Bird, 1988). Characteristics under the trait indicator of subjective norms include: the need for achievement (McClelland, 1961), risk-taking (Kirzner, 1973), internal control (Azjen., 1987; Kathleen, 2017), and tolerance for ambiguity (Boyd & Vozikis, 1994).

The Theory of Planned Behaviour (TPB) has been widely used to study human behaviour (Azjen, 1987; Azjen, 1991), such as patient’s behavioural response towards drugs, student's entrepreneurial engagements response towards venture creation (Gelderen, 2007 & Zhengxia, 2012) and consumer behavioural response towards green products (Verbeke, 2006; Nee, 2012). Critics hold that the theory lacks predictive powers (Solomon, 2018). In order to solve this, the Process Theory introduced the dynamic entrepreneurial environment (Sarasvathy, 2001 & Santos, 2014). In relation to this, The Process Theory aids entrepreneurs to consider that change is possible in environment with plenty of opportunities and uncertainties (Sarasvathy, 2001). Perceived Behaviour Control relates to self-efficacy and perceive control. Self efficacy measures behaviours when associated with opportunity recognition (Krueger & Carsrud, 1999; Krueger & Reilly, 2000; Gustafsson, 2006) which is the main concept in entrepreneurship (Krueger, 1993; Krueger & Carsrud, 1999; Krueger & Reilly, 2000). Self-efficacy merges with the intention to start and exploit new opportunities. It is generally believed that entrepreneurs with high self-efficacy are more performing than those with low self-efficacies (Gustafsson, 2006).

Perceived Control is a means of enhancing one’s self-efficacy (Bandura & Wood, 1989). It is defined as a means of controlling intentions to achieve something (Ajzen., 2002). It involves shifting one's minds from trying to achieve collective goal to achieve personal goal (Bandura & Wood, 1989). In order to achieve organisational change, there are two levels of perceived control that need to be addressed (Bandura, 1986): personal efficacy to initiate change by using one's capabilities and one's influence on the environment (Bandura & Wood, 1989). One should be able to control oneself before being able to control what surrounds them. Below is Azjen's schematic diagram of the Theory of Planned Behaviour.
Figure 1: The Theory of Planned Behaviour

Source: (Azjen., 1987)

2.1.3 Entrepreneurship Theory-Theory of Effectuation (or Process Theory)
Effectuation is a way of reasoning or a means of solving a problem with the concept that the future is volatile but can be controlled through human actions (Santos, 2014). Entrepreneurs are not managers because managers use an end to find the means, but entrepreneurs use their means to get an end. The means justify the ends and not the end justifies the means (Santos, 2014). Entrepreneurs make decisions and perform actions by defining the next best steps while assessing the available resources (Sarasvathy, 2001). The intention pathway may not always be linear as opposed to Azjen's view, but it may change (Sarasvathy, 2001). Sometimes the initial intent is different from the final intent. Entrepreneurship is define by a lot of uncertainties and thus, it is inappropriate to say that intention is strictly linear (Sarasvathy, 2001; Santos, 2014). The gaps of the aforementioned theories are illustrated below.

Table 1: Gap Analysis of Intention Theories & Entrepreneurship Theory

| Theories                        | Contributions                                                                 | Particularity                                                                 | Limitations                                                                 |
|--------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Shapero's Theory               | Cultural & social factors influence individual perception of becoming an entrepreneur. | Used to analyze entrepreneurial activities                                     | Empirically not testable                                                   |
|                                |                                                                                |                                                                                | The theory could not explain certain constructs.                           |
| Theory of Planned Behaviour    | This theory links one's beliefs and behavior.                                 | Intentions are determined by Attitude, subjective norms and perceived behavioral control. | Its applicability power is low.                                             |
|                                | The intention is a linear pattern                                             | Has a high explanatory and predictive power, making a better Understanding of human behavior. | The time frame between intent and action are not addressed.                |
| Sarasvathy’s Process Theory    | Entrepreneurs make decisions by identifying the next best step with resources available to achieve goals. | Describes the process for entrepreneurs to attain new ventures and offers a adjustment where necessary | Does not consider human behavior's influence on the economy and the environment. |
|                                |                                                                                |                                                                                | Resources used are limited to the time and scope of today and not tomorrow. |
2.2 Entrepreneurial Action Theories

2.2.1 Creative-destruction Theory

The Creative-Destructive Theory is also known as the Schumpeter's Theory of Innovation. It explains the importance of entrepreneurs in advancing economies through innovations. Schumpeter believed that the economy moves in a circular flow. The introduction of innovations will advance an economy to another stage of development (Schumpeter, 1965). The theory is drawn on the basis of closed capitalist economic perspective. The health of the economy depends on the pursuit of opportunities by entrepreneurs (Schumpeter, 1965). Schumpeter concludes that even though entrepreneurship is planned, but the quality of their actions validates profitability. Schumpeter's theory argues that perceived uncertainty does not play a role in entrepreneurial action. He opined that opportunities are abundant and recognisable by all in a closed economic system and only the adventurous make gains of them. This is supported by the view that the lack of identification of unperceived opportunities makes some economies stagnant (McMullen, 2006).

2.2.2 Kirzner's Alertness Theory

The search of opportunities in the face of uncertainties shows entrepreneurial alertness. Entrepreneurial alertness occurs when the market presents opportunities to be exploited by individuals who make the first move and fit the necessary profile (Kirzner, 1973). Therefore, entrepreneurs must be alert to spot perceived opportunities and make necessary actions (Kirzner, 1973; Tang, 2012). Entrepreneur's personality traits, social networks, and knowledge influence entrepreneurial alertness (Tang, 2012). In order for entrepreneurs to successfully identify business opportunities; entrepreneurial alertness is indispensable (Tang, 2012). Entrepreneurs manifest alertness when they conduct assessment of new changes, modifications and decide if such opportunities are profitable (McMullen, 2006). A defender of his theory argued that market research is not entrepreneurship (Dahl, Praag, & Thompson, 2014).

2.2.3 Uncertainty-Bearing Theory

This theory is positioned on the importance of both knowledge and motivation that precipitate entrepreneurial actions (Knight, 1921). The theory argues that decisions are made under uncertainty and that profits are made such conditions and not necessarily through recognizing or creating opportunities (Knight, 1921).

2.3 Gap Analysis of Action Theories

The limitations of entrepreneurial action theories as shown below

| THEORIES        | CONTRIBUTIONS                                                                 | LIMITATIONS                                                                                   | Genuine Sustainability                                                                 |
|-----------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| SCHRUMPETER     | Economic development is as a result of the pursuit of opportunities by entrepreneurs.  | Perceived uncertainties are not for all entrepreneurs to act.                                   | An entrepreneur is solely profit-driven with little or no social and environmental responsibility in mind. |
| THEORY          |                                                                                |                                                                                              |                                                                                        |
| KIRZNER’S       | Entrepreneurs need alertness to take advantage of opportunities and they act under uncertainty. | Entrepreneurial alertness cannot be taught.                                                   | Entrepreneurs focus is to take the economy toward equilibrium; Theory only bases attention on the role of the entrepreneur’s economic power. |
| THEORY          |                                                                                |                                                                                              |                                                                                        |
| KNIGHT’S        | Entrepreneurs make decisions in uncertainty                                    | Theory shows little knowledge on how to tackle                                              | Entrepreneurs are more opportunity-driven than sustainability-driven.                    |
| THEORY          |                                                                                |                                                                                              |                                                                                        |
2.3.2 Empirical & Theoretical Gap (Justification)

This study considers the following gaps between the empirical and theoretical literature to develop the conceptual framework of the research as shown below:

Table 3: Gap Analysis of Indicators

| Latent Constructs      | Indicator (s)                        | Entrepreneurial Intention Theories | Entrepreneurial Action Theories |
|------------------------|--------------------------------------|------------------------------------|---------------------------------|
|                        |                                      | Shapero                            | Azjen                           | Sarasvathy                       | Schumpeter | Kizner  | Knight   |
| Subjective Norms       | Personality traits (EI)              | √                                  | √                               | √                                | X          | X       | X        |
| Planned Behaviour       | Perceived usefulness                | √                                  | X                               | √                                | X          | √       | -        |
| Perceived Behav. Cont. | Self-efficacy, Perceived C           | √                                  | √                               | √                                | √          | √       | -        |
| Entrepreneur Alertness  | Innovation Opportunity              | X                                  | √                               | √                                | X          | √       | √        |
| Uncertainty            | Risk                                 | X                                  | X                               | √                                | X          | √       | √        |
| Sustainability         | People, planet and profits           | X                                  | X                               | X                                | X          | X       | X        |

Source: Compiled by Authors (2019)

3.0 Developing of Hypothesis

3.1 Relationship between entrepreneurial intentions and sustainability

Most behavioural studies attribute entrepreneurial intentions to venture creation, meanwhile others like Kirzner’s support the fact that intention by itself is not sufficient if there is no action (Kirzner, 1973; Azjen, 1987; Krueger, 1993). Entrepreneurial intention consist of subjective norms, perceived behavioural control and planned behavioural control which explain the entrepreneurial intention and sustainability as shown below:

3.1.1 Subjective norms and Environmental Sustainability

An investigation using the TPB framework to study consumer's purchase intention (subjective norm) towards green products led the conclusion that subjective norm, perceived behavioural control and consumer attitude have a remarkable positive influence on the purchase intention of green products (Kamonthip, 2016). Intentions are often the foundations of the choices people make and it contributes to behaviours that affect the environment. Subjective norms apply to the conviction that a person will validate a particular behaviour (Marija, 2015). Subjective norms are associated with the social pressure that individuals faced from what other people such as friends and families consider important to them (Krueger, 1993). Several researchers have found positive relationship between subjective norm and sustainability (Verbeke, 2006).

According to (Kamonthip, 2016), consumers’ subjective norms are positive when purchasing sustainable green products. This implies that as long as consumer's subjective norms are involved, consuming green products yield positive relationship. Nevertheless, it has been argued that subjective norms are the weakest constructs in the Theory of Planned Behaviour that positively influences intention (Marija, 2015; Kamonthip, 2016). This is because intentions are greatly influenced by internal factors such as attitude and perceived behavioural control compared to subjective norms (Azjen., 1987). However, (Nee, 2012) observed that entrepreneurial intention is negatively related with the consumption of green products due to the fact that low-income earners were not able to purchase sustainable green goods.

3.1.2 Relationship between Perceived Behavioural Control and Environmental sustainability
Studies on consumer purchase intention toward green products supports environmental sustainability and thus conclude that perceived behavioural control positively influences customer's intention toward green products. An entrepreneur's ability to perform a task and the conviction that they have control over the situations (locus of control) is called perceived behavioural control (Kamonthip, 2016). This construct has greater positive influence over the environment than the others. Past experience and knowledge give individuals mastery to influence their environment (Marija, 2015; Kamonthip, 2016). The capacity to control the environment goes along with experience, knowledge, and skills (Wood, 1989). Nonetheless, when self-efficacies are weak, individuals are being influenced by environmental demands (Wood, 1989). This therefore supports the view that strong perceived behavioural control influences environment sustainability. Based on the respective components of entrepreneurial intentions, this study therefore hypothesised that;

**H1: Entrepreneurial Intention significantly affects environmental sustainability**

3.2 Entrepreneurial actions and sustainability

3.2.1 Relationship between entrepreneurial alertness and environmental sustainability

Entrepreneur’s ability to response to opportunities, be creative and have motivation to carry out their activities influences entrepreneurship responsiveness to the business environment (Knight, 1921; Kirzner, 1973). Entrepreneurial alertness is the capacity for entrepreneurs to able to exploit cognitive skills, knowledge and the ability to response to the environmental dynamics. Entrepreneurs search for new opportunities by constantly exploring the environment (Tang, 2012).

3.2.2 Relationship between uncertainty and environmental sustainability

Most entrepreneurs have the notion that if their predecessors could succeed with their limited resources, then they too can (Knight, 1921; Kirzner, 1973). Opportunities upset uncertainties and based on market potential, entrepreneurs can respond accordingly (McMullen, 2006). McClelland (2006) argued that entrepreneurs have moderate level of risk-taking propensity and would not pursue risk like gamblers because there is a limit to take uncertainty (McClelland, 1961). Contrary, (Knight, 1921) revealed that uncertainty can only be taken once the profitability of the uncertainty is known. Therefore, entrepreneurs will bear uncertainty depending on the level of profitability that it offers. Based on the aforementioned literature on entrepreneurial actions, this study hypothesised that;

**H2: Entrepreneurial Actions affects environmental sustainability.**

Considering the gap analysis above, it was observed that no single theory covers all six (6) latent constructs used in the study. Azjen's TPB has the most indicators on entrepreneurial intention, and thus appropriate for use. The following is a conceptual framework for the study where entrepreneurship

3.3 Conceptual Framework

Figure 2: Proposed Conceptual Framework
3.3.1 Operationalization of Variables

Table 4: Operationalization of Variables and sources

| Variable                  | Constructs                   | Indicators                                                                 | Sources                                                                 |
|---------------------------|-------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Entrepreneural Intentions | Subjective Norms              | What influences individual                                                  | (Azjen., 1987), (Crick, 1998), (Bhide, 2000) (Azjen., 2002), (Verbeke, 2006), (Marija, 2015), (Sommer, 2011), (Xie, 2014), |
|                           |                               | Perform task with what they have                                           |                                                                         |
|                           |                               | using something boosts output                                              |                                                                         |
| Perceived Behavioural Control (PBC) | The ease to perform a behaviour | (Azjen., 1987); (Berglund H., 2005); (Schumpeter, 1965); (Fielden, 2004), (Krueger N. J., 2000); (Bandura & Wood, 1989), (Gustafsson, 2006), (Sommer, 2011), (Cooke, 2004) and (Shane, 2000) (Chan, 2000). |
|                           |                               | Reflects past experience                                                  |                                                                         |
|                           |                               | Confidence to have resources to Perform a task                            |                                                                         |
|                           |                               | Demography (age)                                                          |                                                                         |
| Planned Behav. (Attitude)  |                               | Acting promptly                                                           | (Azjen., 2002), (LaMorte, 2019), (Chiou, 2011), (Davidsson, 1995),     |
| Entrepreneural Actions    | Entrepreneurial Alertness     | Perceived new opportunities                                               | (Robert, 2006); (Shook et al. (2003), (Frese, 2009), (Tang, 2012)      |
|                           |                               | Position oneself as a mkt. leader                                        |                                                                         |
|                           |                               | Foresee economic development                                              |                                                                         |
| Uncertainty               |                               | Profit is possible with uncertainty                                      | (Knight, 1921), (McMullen, 2006), (Tang, 2012), (Frese, 2009),        |

Source: Compiled by Authors (2019)

4.0 Methodology

A conclusive case study design (Gomm, Hammersley & Foster, 2000; Yin, 2009) was adopted and supported by the philosophical orientations of positivism epistemology objectivism ontology (Younkins, 2012; Smith, 2013), and value-free axiology (Khan & Mubashera, 2012). Data was primarily sourced using structured questionnaires survey (Wiseman-Orr, 2006) and operationalized using five Likert scales (Mogey, 2007). The research approach is deductive (Burneyl, Saleem, & Hussain, 2008) and the sampling strategy...
was purposive (Tongco, 2007). Data was analysed using Amos24 and SPSS 23 statistical packages. The analysis for missing data was completed using the Little’s MCAR test (Little, 1988; Nishimura) and the Expectation-Maximization Algorithm was used to generate complete data set. Parametric assumptions for model fitness (Garson, 2012) were conducted and data cleaned using Exploratory Factor Analysis (Williams, Brown, & Onsman, 2010) and Confirmatory Factor Analysis (Prudon, 2013). Constructs were tested for validity using the construct validity test (Strauss, Milton & Smith, Gregory, 2009). The reliability of the research instrument was completed using alpha Cronbach (Bonett, Douglas & A. Wright, Thomas, 2014). Structural Equation Modelling was done based on the goodness of fit parameters supporting the analysis (Joop & Timo, 1999).

The accessible population was focused in Yaoundé and Douala which cover over 60% of SMEs in Cameroon with 35.1% in Douala and 23.9% in Yaoundé (National Institute of Statistics, 2019). According to Yemane (1967), sample size determination for a known sample size is done using the formula:

\[ n = \frac{N}{1+N(e)^2} \]

where, \( N \) = Population size, \( n \) = Sample size, \( e \) = Sampling error. \( N = 93,969 \) and \( e = 0.05. \)

Entrepreneurs in Douala = 35.1% x 93,969 = 32983.119. Entrepreneurs in Yaoundé = 23.9% x 93,969 = 22458.591.

\[ n_D = \frac{32983.119}{1 + 32983.119(0.05)^2} = 395.20 \] entrepreneurs in Douala,

\[ n_Y = \frac{22458.591}{1 + 22458.591(0.05)^2} = 393.00 \] entrepreneurs in Yaoundé,

\[ \begin{align*}
    n_{Douala} &= 395.20/2 = 197.6 ; \\
    n_{Yaounde} &= 393.00/2 = 196.6,
\end{align*} \]

\( n = 197.6 + 196.6 = 394.1 \sim 400 \) entrepreneurs

5.0 Data Analysis and Presentation of Results
The Little’s MCAR test was conducted to analysis missing data with Chi-Square \((X^2) = 50.560, \) DF = 26, Sig. = .873 indicating that missingness was completely at random (MCAR). Complete dataset was generated using the Expectation-Maximisation Algorithm (EMA). Exploratory Factor Analysis (EFA) was conducted to downsize indicators for respective constructs. Exploratory Factor Analysis for both entrepreneurial intentions and actions showed adequacy in sampling size with Kaiser-Meyer-Olkin Measure \((KMO = 0.705)\) and significant inter-correlation between sampled items (Bartlett’s Test of Sphericity; \(P\)-value = 0.000) with Chi-Square \((X^2 = 1541.094)\) and Degree of Freedom \((DF = 28)\). In addition, Principal Component Analysis (PCA) was used with extraction based on fixed factors of two and rotated using Promax. Two new components were extracted with 69.78% of total variance explained as shown below.

| Table 5: Total Variance Explained |
|-----------------------------------|
| **Total Variance Explained**      |
| **Co** | **Initial Eigenvalues** | **Cumulative.** | **Extraction Sums of Squared Loadings** | **Loadings** |
| **% of Variance** | **% of Variance** | **% of Variance** | **% of Variance** | **Total** |
| 1 | 3.768 | 47.095 | 47.095 | 3.768 | 47.095 | 47.095 | 3.767 |
| 2 | 1.815 | 22.685 | 69.779 | 1.815 | 22.685 | 69.779 | 1.819 |
| 3 | .811 | 10.134 | 79.913 |
| 4 | .715 | 8.943 | 88.857 |
| 5 | .343 | 4.289 | 93.146 |
| 6 | .254 | 3.170 | 96.316 |
| 7 | .215 | 2.685 | 99.001 |
| 8 | .080 | .999 | 100.000 |
Extraction Method: Principal Component Analysis.
Total retained indicators for both Entrepreneur Intentions and Entrepreneurial Actions constructs are shown on the Pattern Matrix table below:

**Table 6: Pattern Matrix**

| Pattern Matrix<sup>a</sup> | Component | 1    | 2    |
|---------------------------|-----------|------|------|
| EI1                       |           | .777 |      |
| EI2                       |           | .888 |      |
| EI3                       |           | .850 |      |
| EI4                       |           | .832 |      |
| EI5                       |           | .905 |      |
| EA3                       |           | .578 |      |
| EA4                       |           | .787 |      |
| EA5                       |           | .886 |      |
| Eigen value               |           | 3.768| 1.815|
| Variance explained        |           | 47.095%| 22.685%|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) | | 0.705 |
| Bartlett's Test of Sphericity | | 0.000 |

Explanatory Factor Analysis was conducted for environmental sustainability. The assumptions of Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO = 0.511) and inter-correlation (Bartlett’s Test of Sphericity; P-Value = 0.000) and Chi-Square (X² = 202.645), and Degree of Freedom (DF = 6) were tested positive for EFA.

### 5.1 Validity and Reliability Measurement

To ensure that all retained indicators are valid measurement, construct validity was conducted and results shown below:

**Table 7: Construct validity**

| latent Constructs | Indicators | Factor Loadings (FL) | Squared of FL | STATUS |
|-------------------|------------|----------------------|---------------|--------|
| Intention         | EI1        | 0.777                | 0.603729      | AVE = 0.725 > 0.5 (Admissible) |
|                   | EI2        | 0.888                | 0.788544      |        |
|                   | EI3        | 0.85                 | 0.7225        |        |
|                   | EI4        | 0.832                | 0.692224      |        |
|                   | EI5        | 0.905                | 0.819025      |        |
|                   | SUM        | 4.252                | 3.626022      |        |
|                   | AVE        | 0.8504               | 0.725204      |        |
| Actions           | EA3        | 0.578                | 0.334084      | AVE = 0.579 > 0.5 (Admissible) |
|                   | EA4        | 0.787                | 0.619369      |        |
|                   | EA5        | 0.886                | 0.784996      |        |
|                   | SUM        | 2.251                | 1.738449      |        |

<sup>a</sup> When components are correlated, sums of squared loadings cannot be added to obtain a total variance.
All three constructs were admissible as shown above. The alpha Cronbach test was conducted to verify internal consistency. Results revealed that all three constructs measurement were consistent as shown below:

**Table 8: Cronbach’s Alpha**

| Latent Constructs     | Cronbach's Alpha | Threshold | No of Indicators | Status     |
|-----------------------|------------------|-----------|------------------|------------|
| Entrepreneur Intentions | 0.903            | 0.6/0.7   | 5                | Reliable   |
| Entrepreneur Actions  | 0.642            | 0.6/0.7   | 3                | Reliable   |
| Sustainability        | 0.797            | 0.6/0.7   | 2                | Reliable   |

Furthermore, Confirmatory Factor Analysis (CFA) was completed based on: GFI, CFI, IFI, TLI, RMSEA, SRMR and the Chi-Square goodness of fit parameters. All observed regression paths in the model as shown below are statistically significant:

**Figure 3: Confirmatory Factor Analysis**

\[
\text{CMIN/DF} = 30.642; \ P = 0.06; \ GFI = 0.93; \ IFI = 0.95; \\
CFI = 0.961; \ RMSEA = 0.06; \ SRMR = 0.013
\]

**Table 9: Regression Weights: (Group number 1 - Default model)**

| Label | Estimate | S.E. | C.R. | P     |
|-------|----------|------|------|-------|
| EI5   | ---      | 1.000|      |       |
| EI4   | ---      | 1.014| .061 | 16.630 | *** par_1 |
### 5.2 Structural Equation Model (SEM) Development and Specifications

The hypotheses for the two predictors of environmental sustainability (Entrepreneurial Intentions and Entrepreneurial Actions) were both tested using the specification of SEM and the results are as shown below:

**Table 10: Regression Weights: (Group number 1 - Default model)**

|   | Estimate | S.E.  | C.R. | P       | Label |
|---|----------|-------|------|---------|-------|
| EI3 | Intentions | 1.002 | .061 | 16.555  | *** par_2 |
| EI2 | Intentions | 1.503 | .074 | 20.393  | *** par_3 |
| EI1 | Intentions | .857  | .058 | 14.771  | *** par_4 |
| EA3 | Actions    | 1.000 |   |        |       |
| EA4 | Actions    | .408  | .105 | 3.904   | *** par_5 |
| EA5 | Actions    | .793  | .107 | 7.439   | *** par_6 |
| SJ3 | Sustainability | 1.000 |   |        |       |
| SJ4 | Sustainability | 1.026 | .058 | 17.751  | *** par_7 |

|   | Estimate | S.E.  | C.R. | P       | Label |
|---|----------|-------|------|---------|-------|
| SMEAN | EAMEAN | .262  | .031 | 8.593   | *** par_1 |
| SMEAN | EIMEAN | .894  | .027 | 33.066  | *** par_2 |
The effects of both entrepreneurial intention and actions explained 79.8% of environmental sustainability. The Structural Equation Model with all specifications of goodness fits are as shown below:

**Figure 4: Structural Equation Model**

![Structural Equation Model Diagram]

**Table 11: Harmonised Test of Hypotheses**

| Hypotheses                                      | P-Value @ 95% CI                      | Size of Effects | Decision/conclusion       |
|-------------------------------------------------|---------------------------------------|-----------------|---------------------------|
| Entrepreneurial Intention has positive impact on| P-V = 0.000 < 0.05 (significant at 1%, 5% and 10%) | Strong (85%) positive | Reject the null hypothesis |
| Environmental Sustainability                     |                                        |                 |                           |
| Entrepreneurial Actions has positive impact on  | P-V = 0.000 < 0.05 (significant at 1%, 5% and 10%) | Weak (22%) positive | Reject the null hypothesis |
| Environmental Sustainability                     |                                        |                 |                           |

**6.0 conclusions**

Two key objectives were statistically tested using a sample of 400 SMEs operated from Douala and Yaoundé to predict the impacts of entrepreneurial intentions and actions on environmental sustainability. Data was analysed at the 95% confidence interval using Structural Equation Model and results revealed that entrepreneurial intention has strong positive statistical significance impacts on environmental sustainability. On the other hand, entrepreneurial action has positive but weak significant statistical impacts on environmental sustainability. The proposition of genuine sustainability is slow but achievable since that both intention and action are positively significant to environmental sustainability. Strong positive statistical significant results for both entrepreneurial intentions and actions would mean a healthy sustainability.
ecosystem. This study therefore recommends more commitment from the entrepreneurs, the government and communities in developing positive intentions and actions towards environmental sustainability.

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