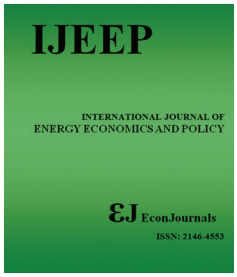

International Journal of Energy Economics and Policy

ISSN: 2146-4553

available at http: www.econjournals.com

International Journal of Energy Economics and Policy, 2022, 12(1), 93-100.

Renewable Energy Embedded Sustainable Supply Chains with Methane Harness: The Gateway to ASEAN Strategy Illustration with Mixed Model Analysis

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Received: 13 September 2021 **Accepted:** 14 November 2021 **DOI:** https://doi.org/10.32479/ijeep.12627

ABSTRACT

Intent, initiative, immersion, impact manifest through the renewable energy embedded sustainable supply chains. The value-add is more enhanced with COP26 determination to curb methane minimum minus thirty percent. The change obviously embeds benefits, through intent on societal empowerment, initiative on water waste energy rehaul, immersion with gender aligned supply chains. This paper is on the construct of mixed method based qualitative methodology on value-add change that embeds benefits in the renewable energy embedded sustainable supply chains with methane harness. Embedded energy in supply chains can now focus on innovation retaed to methane and not alone carbon dioxide. Developing regions are vibrant with economic activity that proliferate supply chains. They innately depend on water waste energy footprint. There is resonating need for positioning sustainable supply chains with renewable energy that is gender aligned. Methane is a ultra-potent greenhouse gas that has a win win focus on adoption of renewable energy as well as attain sustainability of energy needs of supply chains. Methane traps one hundred times more heat when present in the atmosphere. Focus on methane is potent as it gets removed within a decade, in contrast to carbon dioxide that lingers over centuries. The linkgage options through innovation, intent, impact is a contribution of this paper. Supply chain resource corridors are tenable to potential renewable inclusion. The possibility of varying the impacts of different values of the independent variables, future research can confirm the extent of renewable energy adoption with sustainable supply chain growth. One could also design for variance on the changes of location or habitats, that can define the need of a distributed and differentiated range of combinations. A metric could be designed which is responsive to varying combinations of water quality, waste parsimony and renewable energy minus methane feasibility.

Keywords: Methane Harness, COP 26 Minimizing Methane, Renewable Energy Embedding, Sustainable Supply Chains, Mixed Methods
JEL Classifications: Q01; O35; R580

1. INTRODUCTION

Intent, initiative, immersion, impact manifest through the renewable energy embedded sustainable supply chains. The value-add is more enhanced with COP26 determination to curb methane minimum minus thirty percent. The change obviously embeds benefits, through intent on societal empowerment, initiative on water waste energy rehaul, immersion with gender aligned supply chains. Embedded energy in supply chains can now focus on methane harness (Tester et al., 2012). (Fargione et al., 2010). Harnessing methane emissions will go beyond compliance on future climate change given the possibility to curb effects (Ocko et al., 2017). Societal empowerment is one such, relevant in this water-parched, waste-dumped, energy-laden with carbon, situation (Naisbitt and Naisbitt, 2016). Societal empowerment emanates from ownership, aim and orientation (Crowther and Reis, 2011). Societal choice fulfils empowerment that propitiates mechanism that helps implementability of the goals through monotonicity (Maskin, 2008). Need for paradigm shift with spirit of sharing (Edenhofer, et al., 2011; John, 2013; Stead and Garner Stead, 1994).

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Developing regions are vibrant with urban-rural clutter, that are reeling under the per-capita water – waste – energy footprint. Let's pause a moment to reflect and learn from heritage past. There is resonating need for positioning Sustainable Supply Chains with Renewable Energy that is Gender aligned. This position is nomenclatured as Sustainable presence, that is actionable, implementable and measurable at rural – urban aligned habitats and respective hinterlands. This paper brings together instances from Western Europe, the ASEAN gate-way (Thailand, Malaysia, Singapore), South Asia among relevant others on intangible benefits to regional supply chains with methane harness. This has substantive manifestation for Middle-east and North Africa (MENA). The paper endeavors to consolidate the value-based competencies for better renewable energy embedded methane harnessed supply chains. Adds tangibility to governance, environment, gender, society and competitiveness (Escobar and Vredenburg, 2011). Multicentricity is a trait displayed by many developing regions, and Thailand, the de facto gateway to the Association of South East Asian Nations (ASEAN). The outcomes of this paper illustrates through the mixed model qualitative methodology. The results underscores societal empowerment, national-regional security and economic prosperity (Doyle, 2018; Mares, 2018). A key priority of the minus thirty methane curb framework is to include appropriately scaled enewable energy enabled sustainable supply chains. he implementation of the Sustainable Development Goals through seamless reforms, irreversible compliance and differentiated competitiveness (Sen, 2014). Corporate societal responsibility is enhanced to societal empowerment having sovereign scope (Schwab, 2008), wherein, development and empowerment of human capital, societal equity and equality are becoming the norm (Ockey, 2017; Dietz et al., 2018).

This research pegs on the proposition of twin triads of Water Waste Energy Own, WWE Own, to be equivalent to "We Own." It is intended to assess how WWE Own contribute to "We Own" for enhanced implementability of the Sustainable Development Goals. WWE Own represents water, waste, energy ownership for sustainability. "We Own" resonates the proactive spirit of entrepreneurial care, a sense of incumbency with the intent of societal empowerment (Lim et al., 2018). This construct aims to gauge the framework through a key entity, a sovereign nation, termed as the de facto gateway to the ASEAN, that has architected the 20-year strategy that disrupts, yet generates continuity (Crowther and Reis, 2011). This approach generates the value-outcome of societal empowerment, manifested as 'what we own, we take care.

Entities, institutions and businesses have the onus to value-create with this spirit of ownership (Moore, 2013). Unveiling the latent and submerged principal issues, such as resource wastage, societal cohesion and the elemental steps to implement sustainable development goals are expected (Willard, 2012). Balancing is needed among the technology, science, innovation deliverables with entrepreneurial utilization of resources (Desa and Basu, 2013). Waste is an unwanted parameter in water management and energy productivity (Kneese et al., 2015). The hypotheses articulates in favor of a sustainability orientation metric to draw equivalence between, Water Waste Energy Ownership, WWE Own and "We Own." WWE Own blends ecology-benign technology, societally meaningful innovations and disaster prepared infrastructure focused on energy and water, with waste serving as the balancer (Hart and Milstein, 1999).

This paper progresses as follows. The related literature and the illustrative ASEAN gateway strategy framework case leads to the outcome that WWE is intricately interrelated. Complementing this, "We Own" embeds the spirit of ownership among policy-makers, financiers, service-providers and community (Diallo et al., 2013). While the left-hand side of the equivalence equation emphasize on green technology, triple bottom line metric, disaster proofing infrastructure for water, waste, energy and climate resilient financing, the right-hand side of the equation, proposes proactive entrepreneurial spirit of ownership, "We Own." The equivalence of WWE Own and "We Own" draws inspiration from the link between governance and sustainability (Crowther and Seifi, 2016).

2. LITERATURE REVIEW

Literature review is cached in three routes: (1) the Curb methane trajectory: Embedded energy in supply chains can now focus on methane harness (Tester et al., 2012) (2) The scalability of renewable energy pathway: Mitigating methane led impacts address farm logistics, supply chain yields, scalable renewable energy production appropriateness (Fargione et al., 2010). (3) Potential of water waste energy ownership "W W E Own" to accentuate the possibility of water, waste, energy to resources in a sustainable supply chain scenario (Ongsakul and Sen, 2019).

2.1. The Curb Methane Trajectory

Ownership for sustainability to align production with sustainable consumption (Seifi et al., 2012). "We Own" acts as the latent and intangible drive for entities (Eustace, 2000) to put W W E Own to action (Ghai and Vivian, 2014). The transformative element is from market-driven to market driving (Kumar et al., 2000). Learning in crisis epitomizes "what we own, we take care" (Rebouillat and Lapray, 2014). For W W E Own to gain adequate traction from "We Own" looks to the bio-inspiration (Dicks, 2017) and principles of sustainability assessment and measurement (Pintér et al., 2018). The transition from top-down to bottom-up societal measure needs to be mainstreamed as an authentic metric to implement the sustainable development goals (Hesselbarth and Schaltegger, 2014).

The severity and interlinkages of the global crises in financial markets, food and climate led to the search of estimating a sustainability orientation metric that assesses sovereign legitimacy, an analogical extrapolation of corporate shared value (Rendtorff, 2017). Sustainability orientation is based on differentiated sovereign sustainability contexts that aggregate regionally, as in the ASEAN, to outreach holistic perspective encompassing strategic, geo-cultural, resource security impacts that drive societal empowerment (Uyan-Atay, 2016). Hitherto unaddressed yet significant domain of water waste energy inter-relatedness has a catalyzing impact on creating durability and sustainability (Rendtorff, 2016). The sustainability determinants, namely, water, waste and energy are traditionally treated in isolation (Read,

1999). Given the multi-related and inter-disciplinary signature of sustainability orientation, water waste energy inter-relatedness deserves research consideration with a beyond compliance approach (Keijzers, 2000).

2.2. The Scalability of Renewable Energy Pathway

The inter-related domain of water, waste and energy ownership has credence to differential evolution dynamics that causes bio-inspiration (Schaltegger and Burritt, 2018). The water, waste and energy, architecture may be configured as a triad. W W E ensue self-adaptation in a dynamic environment often cross-border, and inspires ecological synthesis (Nonet et al., 2016). Prior research on the "trias energetica" (Entrop and Brouwers, 2010) builds frameworks on triads, prevention, renewability and efficiency. Applied onto water, waste and energy, avoidance on waste proliferation is inter-dependent on quality of water, as well as quantum of clean energy. Bio-inspiration provides a proactive case for license to operate, spurs stakeholder motivation for living labs, that eventually opens markets for sustainable and affordable products and services, primarily in developing countries (Schaltegger and Burritt, 2018). Bio-inspiration is essentially driving proactive quest for reconfigurability, responsiveness and robustness (Leitao, 2009). Institutions proactively adapt to products and services in the holonic paradigm, that draw from societal and ecological logics (Leitao, 2009). Quest for prevention, pursuit towards renewability and aspiration to efficiency is sustainability calling (Shukla and Peruffo, 2017). Ethics serves as the bedrock reason for a proactive switch given the suddenness of uncertainty and need for moral recognition for taking sustainability into decision-making (Guerber et al., 2015). Stakeholders concerned with water, waste and energy have competing interests. Superimposing sustainability, ethics and entrepreneurship onto water, waste, ethics triad calibrates the ethical perception of a firm. This is supported in literature as fundamental framework about stakeholders, social responsibility, and performance (Harrison and Freeman, 1999). Ecopreneurs function with doing good for economic and ecology, with prosocial impact investments (Gibbs, 2008). They have manifested in social-benefit markets for environmental and societal benefits (Corbett and Montgomery, 2017). Utilitarian ecology has conservationism, that scaled stages of utilitarian ecology, authoritarian ecology and radical ecology (Laferrière and Stoett, 2003).

2.3. Potential of Water Waste Energy Ownership "W W E Own"

This literature review enables the configuration of the sustainability orientation as a set of twin triads (Figure 1). Spirit of ownership embodied by "We Own" triad, stems from societal empowerment (Hibbert and Cunliffe, 2015). Water waste energy spirit of ethical ownership is, well and truly, the non-conventional paradigm that evokes responsible management learning. For instance, the other side of the water cycle, i.e., waste water (Bahri, 2009) leads to sustainable urbanism (Kasioumi, 2011). The pertinent challenge in this research is to concatenate the two, W W E_Own with "We Own," to bring bio-inspired stakeholders to embark on water, waste and energy as precious resources that needs humanism to sustain. This conversation is gaining space and impact, in current deliberations at United Nations Global Compact and the Principles for Responsible Management Education First, that PRME initiatives enveloping locale-specific adaptations, such as water waste energy and providing cognizance to environments, traditions, and realities, as in "We Own" and promise – performance gap for ethical orientation (Rasche and Waddock, 2014; Forray et al., 2015; Nonet et al., 2016).

This leads to the research construct component:

> *The propellants to switch to proactive adherence to sustainable cupply chain principles for societal empowerment in institutions are water waste energy ownership*

There is evidence of positive ethical deviance from established ethical industry norms, wherein visionary leadership and resulting structures or activities sustain that vision (Hartman et al., 2005). This indicates the steadfast spirit of business incubators (Shepard, 2017) and support for the value proposition on proactive adherence to ethics (Nurhanifa and Efendy, 2017). One strand of literature calls for ascertaining the novelty of the issue to derive business value through entrepreneurial approaches with waste-led steps to cope with waste disposal, prevention of waste generation as possible, use raw materials which not harm the environment after product usage (Entrop and Brouwers, 2010). Integrating the entrepreneurship (Hoffman and Ventresca, 1999). There is a subset of sustainable entrepreneurs termed "ecopreneurs" who seek to combine business practice with sustainable development and so transform their business sectors. (Gibbs, 2008). Proactive adherence to ethics needs to overcome imperfections manifested as inefficient firms, externalities, flawed pricing mechanisms and information asymmetries (Cohen and Winn, 2007). Firms who sense such imperfections as opportunities tend to establish business grip through visibly demonstrated environmental amelioration. They also proactively look for sustainable technologies and disruptive innovation. In practice, such venturing out, inexorably sets the trajectory of sustainable entrepreneurship (Cohen and Winn, 2007). Stakeholder-strategy inter-relatedness (Freeman and McVea, 2001) creates societal pressure and drives value-creating institutional response (Sharma and Starik, 2004). Interplay of water, waste, energy impacts natural environment that serves as a canopy nurturing society that regenerates (Markman et al., 2016). Stakeholder evaluations on how water, waste, energy lead to authentication on social entrepreneurship (Skilton and Purdy, 2017). The understanding of the inter-relationships between ethics and entrepreneurship creates a prioritized framework to mainstream sustainability (Fenton and Gustafsson, 2017). To ensure sustainability with competitiveness, it is imperative to assess society's foundational values with respect to behavioral, cultural and institutional underpinnings (Hoffman and Ehrenfeld, 2017). Institutions have the onus to portray good governance, societal inclusiveness and environmental sustainability, due to substantial information asymmetry (Markman et al., 2001). Poor performance has often resulted in spectacular business failures, affecting not just shareholders but key stakeholders such as, society, environment and quality of growth (Sen and Pookayaporn, 2016). The linkage of ethics with societal sustainability is of prime concern globally linking emerging markets to developed economies that are often characterized by uncertainty, innovation and allocation (York and Venkataraman, 2010). Ethics impart resilience through power

and legitimacy to resist risks and enables collaboration on trans-boundary generic issues such as, water, energy, waste (Blok, 2017).

This leads to the research construct component:

Actionale pathway to curb methane that oversee a steadfast spirit of "We Own" ownership for responsibility

The ethical underpinning serves as the determinant for the equivalence of W W E_Own with "We Own." The sustainability motivation is derived from ethical underpinning (Schaltegger and Burritt, 2018). In this paper this aspect is addressed through the cognition and learning living lab, simply stated as: ethics is integrative summation of doing societal, environmental and economic good, responsible management learning is the spirit of ownership for doing good, and, sustainability is doing good, time after time, after time. The bridging of W W E_Own with "We Own" needs ethics as the basis, that appeals intrinsically to responsibly align, harness and sustain bio-inspired resources interlocking green with economic assets (Schaltegger and Synnestvedt, 2002; O'Rourke, 2013). Water waste energy ownership is predominantly material sustainability, while "We Own" is appealing to the ethical threshold (Hibbert and Cunliffe, 2015). The cognition and learning potential in living labs is relevant to cope with global compact implementability challenges (Antonacopoulou and Sheaffer, 2014). The sustained motivation for doing good has an underlying narrative with respect to sustainable venturing (Muñoz and Cohen, 2017). Inducting the water, waste, energy exogenic element (Munda, 2006), through bio-inspired optimization (Mozaffari et al., 2013). Water, waste and energy has implications in the context of field-level dynamics with respect to sustainability, responsibility and ethics (Laasch and Moosmayer, 2015; Hoffman, 2001). The role of ethics has overarching presence across multiple cultural frames that parenthesize entrepreneurship and sustainability (Muñoz and Dimov, 2015).

3. MATERIALS AND METHODS

Linear Mixed Methods based framework has literature support to be deploye for sustainable supply chain design that considers life cycle assessment (LCA), qualitative material balance (Chaabane et al., 2012). A mixed model is likely to be qualitatively feasible to examine the components of variation (Grainger et al., 2007; Loh, et al., 2018). Mixed linear models are proving to be preferred for generic association, such as methane harness, renewable energy incorporation applid to supply chains (Yang et al., 2014). As linear mixed method is considered here as the methodological tool for which qualitative document analysis is undertaken (Merriam and Tisdell, 2015; Bowen, 2009). Caution is exercised to screen the purpose of the document, such as the target audience (Bowen, 2009). The latent content is also assessed for completeness befitting to the research schema, latent biases and background information (Descola, 2006). Given the apparent analogy to sustainable supply chain, methane harness, and appropriately scaled renewable energy options, mixed methods are pertinent (Edenhofer et al., 2013). "We Own" and the bio-inspirational essence of the latter, W W E_Own, content/thematic analysis is justified for commonness. The author here concedes as a limitation that the estimates from secondary data is used. Also, estimations from the factors and covariates posited in the research construct is assumed to have linear relationship to the dependent variable, ethical orientation (Rupp and Leighton, 2016).

Elements of the triads are categories, derived from content/thematic analysis. The emerging themes, water quality, waste parsimony and energy minus carbon, under the W W E_Own triad and predominance on ethics, prominence on entrepreneurship and prerogative for sustainability, in the "We Own" triad are category-coded and populated through data gathered by different methods. In the absence of exact data, and given the self-support on this research, this mixed method serves to deliver empirical knowledge. Researcher endeavored to maintain literature connect for objectivity and sensitivity for results to be credible and valid (Bowen, 2009). Given the significance of this study is to chart whether ethics serves as the driving spirit of value-creating ownership, it is treated as the dependent variable in the linear mixed model (Husted and Allen, 2007; Kark et al., 2003). The former triad, W.W.E_Own, water, waste, energy issues spur entrepreneurship. While, the "We Own" provide impetus for sustainability.

The Linear Mixed Model enables expatiation of the twin triads of W W E_Own with "We Own". The data sets are accorded such that they exhibit correlated and non-constant variability. The inherent tensility and flexibility characteristic of mixed linear model befits the quest of calibrating the role of ethical orientation corresponding each of the two distinctive triads, W W E_Own and "We Own". The Linear Mixed Model enables expatiation of the twin triads. The data sets are accorded such that they exhibit correlated and non-constant variability. The inherent tensility and flexibility characteristic of mixed linear model, therefore is deployed in the twin triad model (Bowen, 2009). Drawing from sample of situations over a fixed period, the issues with respect to water quality, waste parsimony and energy minus carbon for each situation in a firm's function is assessed and scored. In each defined period, whenever a new business externality emerges, alters/reorients, both, the W W E_Own and "We Own" intent. The linear mixed model estimates the effect of situational variation, such as climate aberration, disaster vulnerability, energy regulation, waste promulgation and water deterioration. The array of situational stimulants alters the predominance on ethics, prominence on entrepreneurship and prerogative for sustainability, and respective, water quality, waste parsimony and energy minus carbon orientation. These variations adjust for correlation due to repeated observations on each triad for the period under consideration.

4. ANALYSIS

Voice of the grassroots stakeholders define the sense of ownership. This outcome endorses the W W E Own equivalence with "We Own." Water, waste, energy inter-relatedness projects the predominant role of waste as a determiner of sustainability, both from science, engineering and innovation domains with proactivity, entrepreneurial and caring ownership spirit. Noticeably, each of the WWE entities, has dichotomic impacts. Water has issues on scarcity or deluge. Waste denote as degradable or hazardous. Energy manifest as renewable or carbon laden. The sustainability orientation serves as a navigating mechanism between societal adherence and implementability of the sustainable development goals.

This research results gauge the effects of multitudinal W W E_Own orientation of water quality, waste parsimony and energy minus carbon on the entity's ethical orientation.

The model dimension has the dependent variable, Ethical Orientation (EthicalOrient). The Ethical orientation serves as a predictor in the model (Mudrack et al., 1999). Given the conceptual scope of this research, single level of the factor is chosen. Each level of implicit factors may differentially affect the linear value of the dependent variable, namely, ethical orientation (Lins et al., 2017). with respect to i-SDG, implementability of the Sustainable Development Goals in the rurbanized context.

Rurban ethics - governance – sustainability corridors has the potential to create equilibrium for water flow, waste flow, energy flow, human mobility, livestock mobility, food mobility, tourism mobility, education mobility Rural – urban connect creates equilibrium. Migration to urban megapolises is curbed, as there is livelihood beyond agriculture, that is seasonal. The Rurban Water-Waste - Energy inter-dependence can reshape urbanization, boost rural agri-based livelihoods. As water conduits serve agriculture in rural habitats, promote urban forestry, augment low-carbon, solar-power-clean freight, thereby quickly reaching urban markets (Cooke and Eriksson, 2012). Estimating the dimension of a model that creates jobs with feel-good rurban ambiance would sustain the ethics – governance -sustainability paradigm (Goodpaster, et al., 2018; Schwarz, 1978).

5. FIXED EFFECTS FROM METHANE VIS- A VIS CARBON DIOXIDE

Fixed-effects factors are generally thought of as variables whose values of interest are all represented in the data file (Allison, 2005). They explain the nimiety and span of variability in the dependent variable. These findings corroborate that the troika, methane, sustainability and supplychain. Significantly foster Sustainable Development Goals upto 45% by 2030 target. This is corroborated by the United Nations Environment Programme Global Methane Assessment report. This is essentially a fixed effect along with resources side, i.e., water quality, waste parsimony and energy minus carbon. The intent side, represented by the spirit of ownership positioning is the key outcome. The possibility of varying the impacts of different values of the independent variables, future research can confirm the extent of renewable energy adoption with sustainable supply chain growth. One could also design for variance on the changes of location or habitats, that can define the need of a distributed and differentiated range of combinations. A metric could be designed which is responsive to varying combinations of water quality, waste parsimony and renewable energy minus methane feasibility.

6. DISCUSSION

The results indicate that implementability of the Sustainable Development Goals orientation calibrator bridges the W.W.E_Own with "We Own." The ecology-benign technology, societally meaningful innovations and disaster-prepared infrastructure are bio-inspired situational frames that create economic value, corroborates with Schaltegger and Wagner, 2011. The exergy issue, postulated by Rosen and Dincer, 2001, is attributable due to the prominence of entrepreneurship aspect of "We Own," is evidenced as societally meaningful innovation mainly emanating from the need to create disaster-prepared infrastructure. The ethical orientation calibrates or measures efficacy or potency to cause change (Rosen and Dincer, 2001). The proactive spirit of ownership can help to create care and community resolve to global-local socio-economic problems, as seen from Dean and McMullen, 2007. Literature supports that in isolation, energy policy, water reform or waste curbs, do not suffice in coping with sustainability that is simultaneously driven by entrepreneurship and is overarchingly governed by ethics (Sachs, 2011).

Consideration for waste as raw material, prevention of waste generation, product reuse, material recycling, landfill being least preferable option (Entrop and Brouwers, 2010) proactively reorient policies, management structure, enforcement, adoption, and innovation needs to respond quickly to the inertial imbalances (Sen and Pookayaporn, 2016). The triad of water, waste, energy is ubiquitous spanning local, regional and global spaces. Recent literature affirms transformation. For instance, marketing as value co-creation (Gummesson and Mele, 2010), co-innovation and convergence (Lee et al., 2012). The new dominant logic for sustainable entrepreneurship (Vargo and Lusch, 2004), highlights a sustainable-mix that is inextricably linked with (1) sustainable consumption and production, (2) low-carbon finance and (3) disaster resilient supply chain. Global, regional, locale-specific issues on health, disaster and environment create risks that are no longer extraneous to the firm but need to be addressed through reconfiguration of the sustainability-mix. Sustainability-mix creates "pull," impacts attitudes, drives consumption behavior (Munsters and Niesten, 2013). Ethical orientation influencing cost of societal capital, cost of environmental capital and cost of economic capital facilitates the implementability of the Sustainable Development Goals.

Implementability of the sustainable development goals is undoubtedly a key concern globally and specifically in the gateway to the ASEAN, where this study is parked. The intrinsic value brings within parenthesis, science, technology and innovation emphasized WWE Own, on one side of the sustainability balance. On the other side is the societal and environmental equity enhancing "We Own" entrepreneurial driver. The checks and balances mechanism are a key take-away from this contribution. The challenges posed by energy crises, water insecurity and waste proliferation casts shadows on the intent of sovereign entities, business units and people to adhere to the emergent need of implementing the sustainable development goals for the overarching goal of social responsibility. This paper endeavors to construct the rudimentary framework through the twin triads of WWE Own and "We Own."

The Ethical Orientation, depicted by EthicalOrient, is unconditional on a specific model is indicative of the implementability of the model through Akaike's information criterion, AIC (Symonds and Moussalli, 2011). The ethical orientation information criterion signifies resource divisibility to initiate value from societal capital,

environmental capital and economic capital. The model selection is corroborated through the process of cognition and learning through "We Own" efforts to reduce the cost of societal capital, cost of environmental capital and cost of economic capital (Sen, 2014). The cost aspect that corrects the Akaike's information criterion (AIC) posited by Hurvich and Tsai, 1990, is augmented by the "living lab" learning. The Bozdogan's criterion assesses uncertainty and indicates the robustness of the ethical orientation calibrator that bridges bio-inspiration with W.W.E_Own and humanism from "We Own" (Bozdogan, 1990). In other words, uncertainty associated with the sources, benefits, risks, and habitats could be strengthened with contingencies of social capital (Adler and Kwon, 2002). Fixed-effects factors explain the nimiety and span of variability in the dependent variable interknitting the ethical orientation in this schema to interlock humanistic entrepreneurship with bio-inspired sustainability. Each model may have different dimensions as per the Schwarx's Bayesian criterion by Schwarz, 1978. According to this, the Bayes solution, manifests a number of model parameter variants as "We Own" stakeholders such as financiers, entrepreneurs need reassurance that sustainability has value creating potential, as presented by the criteria of different dimensions evaluating the leading terms of its asymptotic expansion (Schwarz, 1978). Furthermore, sustainable entrepreneurship ameliorates ethics to meet, not only economic targets, but also societal goals and environmental benignness. Changing market contexts need to be prepared for exogeneous resource challenges arising out of water quality, waste curbs and clean energy. The research has implications for theory and practitioners in that it clarifies which firms are most likely under specific conditions to make moves towards sustainability innovation. The paper contributes in showing that extant research needs to be expanded regarding motivations for innovation and that earlier models of sustainable entrepreneurship need to be refined (Schaltegger and Wagner, 2011).

7. CONCLUSION, FUTURE RESEARCH TRAJECTORY, AND LIMITATIONS

The framework provides a reference for managers to introduce sustainability innovations in supply chain with a emergent target of harnessing methane emissions. This has outcomes in ASEAN to pursue sustainable entrepreneurship. Methodologically, the paper develops an approach of qualitative linear mixed method based on two constructs, measurement of sustainable entrepreneurship and how to assess the position of a company in a classification matrix. The degree of environmental or social responsibility orientation in the company is assessed based on environmental and social goals and policies, the organization of environmental and social management in the company and the communication of environmental and social issues. The market impact of the company is measured based on market share, sales growth and reactions of competitors. The paper finds conditions under which sustainable entrepreneurship and sustainability innovation emerge spontaneously.

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