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“Issues emanating from business impact on climate, environmental sustainability and CSR (Corporate Social Responsibility): steps towards pragmatism in extant realities”: “Brand translation to equity from ‘CSR as a potential tool in climate change mitigation and enhancing financial performances in organizations”

Brand translation to equity

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Abstract

The relationship between ‘CSR and Brands to the sustainable business environment coupled with climatic changes and environmental issues; ‘while emphasizing the potentials of ‘CSR from brand reputation translation to equity as a tool for mitigating climate change mitigation and enhancing corporate financial performances has been extensively presented.

A value – based dimension becomes clear realizing the link and connection between ‘CSR, brand and brand association recognizing the key constructs and the translation of brand reputation to equity.

The high R – value of 0.9753 between brand reputation and financial performances implies by adopting ‘CSR which enhances brand reputation and translates to equity; corporations, companies and organizations can use ‘CSR as a strategic tool for increased profitability and returns.

It is extremely significant for companies, firms and corporations to take cognizance of ‘CSR and recognize its key roles as brand promoter, gaining increased customer and brand loyalty, and translation of brand reputation to brand equity.

Note: literature extract from Author’s previous work; 2018;
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Finally, relevant models and novel proposed models have been presented extensively; 'giving insightful delineation of this crucial subject emphasizing and stressing the need to also look beyond the models rather giving a complementary treatment and consideration.

'CSR as a strategic tool built and imbibed in business model becomes crucial and can be the key driver and tool to abate climate change, gain increased brand loyalty and enhance financial performances.

Keywords: Brand reputation, Equity, Financial performance, Environmental Sustainability, Climate, CSR

Main text heading/Introduction

CSR goes simultaneously, or hand in hand and strongly tied, connected or associated with a smart brand strategy.

Consumers are strong advocates for CSR who votes with their wallets, highly inclined or attached and supporting companies that demonstrate strong passion and concern for employee welfare, support and community development programs, human rights, climate protection and environmental sustainability.

Creative brand strategist Andrew Miller states and emphasized that positive social purpose and core to strong and a core message, obviously this is driven and associated with core – values when resonated in the hearts of the audience can be the key or major differentiator.¹

It is conspicuous and obviously known that a strong brand strategy gets and enables a company to achieve its strategic goals, missions, drive and get a strong audience, attention and draw in keen closeness its loyalists or the brand advocators, supporters and evangelists.

It is pertinent to say and identify as evident in the literature that brand image can be enhanced by consumer perception of ethics (Ahmed et al., 2020; Iglesias et al., 2019); brand image and brand loyalty was further discussed (Yang et al., 2017), while the path to virtual socialization was enumerated (Yang & Yin, 2019).

Brand can be a path to socialization, in my assertion by building a strong brand and established image associated with 'CSR activities reflective in the business model would potentially actualize this, thereby bringing the required and anticipated social changes.

The core values and strong customer benefits orientation driven design and packages should constitute the major part of the company business strategic fit, core values and propositions in this world of strong customer dominance and increasing place and centeredness for strong customer benefits and advocacy rather than just sales focus.

This reflects in the CSR and creative brand strategy devised and adopted by the company and this way, by so doing, the desired positive 'social changes' anticipated

and sought in our community and larger world can be reached, entrenched and established.

It is essential to consider 'CSR as a key component of business models in the present dynamics seen and realities met among various environmental related issues prominent among them being 'climate change issues and also another worrisome event over the past decades of risen litigation charges and jury suits brought against corporations by individuals and activists who felt bitter of adverse effects of operations of corporations, governments and companies in seeking economic gains.

As a major task, it is sought in this investigation and research finding to unveil the potential of 'CSR as a strategic tool and device in business models adopted by organizations in abating climate change by using 'CSR as an investment risks tool or control check; while enhancing corporate financial performances.

Literature Facts: Sustainable marketing, branding, corporate social responsibility & environmental sustainability

'CSR as a business model helps companies to self-regulate activities that impact stakeholders, including general public (Maignan & Ferrell, 2005; Ferrell & Hartline, 2011).

Literatures finding identifies and presents the four elements of corporate philanthropy as; context for strategy & rivalry, factor conditions, related and supporting industries and demand conditions.

Porter & Kramer (2002) identifies and presents the four elements of corporate philanthropy as; context for strategy & rivalry, factor conditions, related and supporting industries and demand conditions. Firm perspectives of 'CSR has been enumerated (McWilliams & Siegel, 2001).

Even, to emphasize on firm performance and other effects or factors; Fiori et al. (2007) find that ROE has a positive effect on it, and CSR disclosure has no effect on stock prices at all.

The 'multi – dimensional perspective of 'CSR was presented by Matten & Moon (2008) among other investigators. It is essential to note the line drawn between competing and complementary frameworks as exemplified in Carroll (2015).

¹ <https://www.huffposts.com/entry/why-corporate-social-resp-1-92822467>. Retrieved Dec, 06, 2017

As highlighted in previous study firms have several stakeholders which compete for organizational resources; hence borne out of this fact or emerging reality, there is an expedient need for firms to identify strategies or ways for managing stakeholders (Bryson, 2005; Michelon et al., 2013).

Lii & Lee (2012) in their study investigates the efficacy of three corporate social responsibility (CSR) initiatives—sponsorship, cause-related marketing (CRM), and philanthropy—on consumer–company identification (C–C identification) and brand attitude and, in turn, consumer citizenship behaviors. CSR reputation is proposed as the moderating variable that affects the relationship between CSR initiatives, C–C identification, and brand attitude.

In a study presented; Lu et al., 2020 examined the impact of corporate social responsibility (CSR) initiatives of a firm as one of the critical or major factors to improve the competitiveness of the firm in today's aggressive market environment.

In line with literature, consumers pay more attention keenly to company's identity if it is aligned with their personal beliefs (Roblek et al., 2018).

A positive association or relationship between brand and brand equity justifies this fact in conformity to literature findings (Stanwick & Stanwick, 2003; Azham & Ahmad, 2020).

A brand is not just a name or symbol, but it also has a capability to produce, generate and create value, which is called or referred to as brand equity in the business world (Sabaté & Puente, 2003).

In fact, the brand can have significant effects, for instance; revenue premium as a measure of brand equity was validated (Ailawadi, et al., 2003).

Brand equity has been identified to compose of key constructs among; “brand awareness, brand loyalty, brand association and perceived quality”.

Brand awareness can initiate purchase intentions but not enough to enhance the consumer purchase intentions, brand loyalty is essential as identified in this article.

In consistency with literatures; and as identified brand awareness is not enough as it won't generate or increase purchase intentions of consumers towards unknown brands but together with other constructs such as perceived quality, brand loyalty and brand associations (Grewal et al., 1998; Kotler & Armstrong, 2004; Pappu & Quester, 2016; Foroudi et al., 2018) can allow positive associations and generate purchase intentions. This, in subsequently translates to increased and enhanced financial performances as demonstrated in this study, results and presentations.

Emerging and tracing far back from the 1950s; CSR and its related terms, like corporate social responsiveness, corporate social responses, corporate social performance,

corporate citizenship, and corporate philanthropy have been identified and conceptualized and mainly originated or emanated from different disciplines of management (e.g., Carroll, 1979; Crane 2008; Wood, 1991).

According to Friedman, the “major social responsibility activity of business is profit maximization, which is achieved through undertaking business in an open and free competition without deception, shoddy show or fraud”, (p. 1–6). He further argued that, the executive of the corporate body or formation and association act as the agents of the owners, and spending resources of firms on CSR activities amounts to spending other people's resources.

‘CSR plays a vital role in promoting sustainability Berkhout (2005);

Sustainability has various definitions and descriptions, depending on the perspective, orientations and view of whoever is defining and presenting it.

However, all definitions tend and quite seem to be closely related, converge and they have the following elements or attributes usually seen: equitable resource and opportunity distribution, understanding the interconnection between the environment, economy, and the society; and living within the limits or borderlines (Blowfield, 2005).

Munitlak-Ivanović et al., (2018) identified environmental sustainability as a major component of social responsibility representing the green economy.

Pursuing environmental, societal and public interests would do good not only to the company in terms of profiting but also to all including the society and environment at large. In the view of Gavrilović & Maksimović, (2018), (p. 37); “greening any business sector is about improvements in efficiency, water, and waste systems, thereby saving money, preventing pollution culminating to health benefits, liability and boosting public image, in addition this is a potential and strong path to sustainability”.

This is a concept that needs to bring and create value in terms of environmental preservation, social development and wellbeing, and economic results, so there are numerous research works dealing with CSR and its relations to firm performances, an instance is (Saeidi et al., 2015).

The economic interest is the heart of most organizations and in one of the 3 -4 pillars outlined by ‘Carroll (1979, 2003, 2015). In view of Carroll (2015) as ‘CSR has become an emerging reality from global trends in the 1990s from a subject that gained prominence in the 1970s.

Friedman opined that entire parties concerned and all would benefit if businesses make and base decisions on shareholder value.

From the above review of the existing literature, drafts and carved models, propositions cited and arguments

pushed forward in-line with the current study, it is evident that embracing CSR would have significant impacts on companies, bodies and organizations or associations that embrace it, and consequently impact on the business environment and society at large.

To emphatically state and stress; an organization or company is likely to improve, in terms of profitability, in the market as compared to products of companies, which have not incorporated CSR in their business model.

Beyond economic gains, motives and profits, corporations should show responsibility by respecting the environmental to be described as being socially responsible when they show environmental responsibility.

Theory of Stakeholder is quite vital, significant and essentially providing a new platform for the development of CSR theme.

According to Maignan and Ferrell (2004), there are two main strong motivations of organizational CSR activities concerning stakeholder-relations:

1. The Instrumental & functional Approach: As companies rely on stakeholders for their continuous support or providing resources (Barney 1991), managers have to be strongly cognizant and consider the claims and needs from stakeholders.
2. The Moral Perspective Approach: Donaldson and Preston (1995) argue that “all persons or groups with legitimate interests participating in an enterprise do so to obtain benefits and there is no prima facie priority of one set of interests or benefits over another” (p. 68).

Sekulić and Pavlović (2018), p. 61) connected and described socially responsible behaviour of a company or corporations as a reflection of adoption and realization of discretionary business practices and investments that provide support to the community for improved welfare and enhancement of environmental protection.

In addition, CSR is likely to enhance sustainability in outputs and products of the organization or company, further promoting and embellishing the brand of the same in the market. Besides, and conclusively, CSR would tremendously enhance implementation of ethical policies within the company and in relation with its environment, both internal and external.

Methodology, models, theoretical framework & hypothesis formulation

Methodology

As briefly stated earlier in the introduction to this research, a qualitative based succinct description with novel model presentation and quantitative approach

would be sought by way of acquisition and analysis of the primary data source.

The primary data source requisite for this study would be acquired via questionnaires administration, field or experimental survey and simple random sampling distributed; by random sampling each sample or participant has an equal likely-hood or chances of being picked or selected and cutting across the selected the various industry vertices or verticals randomly drawn across consumers and participants in the presented industry vertices. This would involve a slightly rigorous quantitative treatment and acquisition of the primary data salient for the conduct and accomplishment of this research task.

Subsequently having acquired or after acquiring all the important primary data, the next step of this research investigation is the quantitative treatment of the primary data acquired from the survey and experimental field following a qualitative explicit literature description, model proposition and hypothesis formulation built around the research questions.

The quantitative treatment of the data is statistically based and verifying the validity or non-applicability major hypothesis assumed or set in the course of this research investigation.

Assumptions

Basically, the t-test statistics follows the form; $= \frac{Z}{s} = \frac{\bar{X} - \mu}{\frac{\sigma}{\sqrt{n}}}$, where \bar{X} is the sample mean from a sample X_1, X_2, \dots, X_n , of size n , s is the ratio of sample standard deviation over population standard deviation, σ is the population standard deviation of the data and μ is the mean.

Z is designated to be sensitive to the alternative hypothesis, that is its magnitude tends to be larger when the alternative hypothesis is true and s is a scaling parameter that allows the t distribution to be determined.

Pertinently, X follows a normal distribution with mean, μ and variance σ^2 , Z and s are independent, and ps^2 follows a χ^2 distribution with p degrees of freedom under a null hypothesis for a positive constant, p .

Data sources The data was acquired as mentioned above based on random sampling or probability sampling. Samples were based on questionnaire administration taken in Roma and neighborhood capturing 125 responses from respondents. An additional 100 questionnaires were administered equally across the ‘public and organization domains to capture perceptions on brand and ‘CSR as key components of organizational culture and structure as analyzed from the ‘ANOVA subsequently. The total sampled population totaled 225.

Hypothesis or major assumptions

- 1) A relationship exists between the brand name and 'CSR for industries or industry verticals and organizations that practice 'CSR concept. Brand image and identity of an organization is embellished and enhanced by 'CSR or its socially responsible roles.
- 2) 'CSR promotes a strong brand name, identity and enhances an organization's image, brand equity and quality.
- 3) Brand image perception and core values goes beyond advertising and promotions spending or advert expenses, there is a strong need for emphasis on building and promoting an organization's brand image and customers or public perception via 'CSR as consumers associate with such brands, triggers their purchase decisions and repeat purchases, in – turn impacting on financial performances, profitability and returns.
- 4) 'CSR strategically as an investment risk and 'climate change mitigation tool adopted and carved into the business model by organizations, business and corporations would enhance financial performances, returns and profitability.

Research questions

- 1) What is the relationship between the brand image or identity of an organization and its 'CSR: corporate social responsibility roles?
- 2) Describe how brand identification, loyalty and perception would influence purchase decisions, repeat buying and purchases behaviours.
- 3) How would 'CSR, brand association and equity impact on 'climate change mitigation and environmental related activities or course?
- 4) How would 'CSR translate to enhanced financial performances, profits and gains or returns?

Theoretical framework

On one hand; 'CSR and sustainable marketing cannot be dissociated nor isolated, but rather should be conceived as complementary.

Conventionally, in the United States, CSR has been presented and imbibed in a philanthropic model in a perspective whereby companies make profits and then they donate a certain share and proportion of the profits to charitable causes. It is seen, and conceptualized as tainting the act for the company to receive any benefit from the giving. On that ground, basis and according to Carroll and Schwartz (2003), "The social responsibility of business encompasses and significantly – crucial

entailing; the economic, legal, ethical and discretionary (philanthropic) expectations that society has or expect of organisations at a given point in time."

The European model is much more focused and oriented on 'ideology and perspectives or conception of operating the core business in a socially responsible way, approach or manner complemented by investment in communities for solid business case reasons and voluntary interaction with the stakeholders at play. Ideally and broadly speaking or conception, the concept of CSR is a built-in, self-regulating mechanism whereby business would monitor and ensure its support to law, ethical standards, and international norms.

A theoretical framework and building precept or template can be constructed and devised around the several theories that emerged to explain the reasons behind environmental reporting and communication over the time. However, in the light of this study, present realities and for the purpose of extrapolations into the future within the 'contexts of CSR, sustainable marketing and environmental sustainability theories; while in subsequent sections of this study identifying and recognizing; "*Operational efficiency theory*" as a tool for building and establishing value creation.

Sustainable marketing can be seen, conceived and conceptualized as one which is strongly associated and in ties with societal marketing equally socially responsible which places most and ultimate priority on the consumers and the environment and quite different from social or digital media marketing.

Armstrong and Kotler (2008) asserted that sustainable marketing is in the overall best interests of the company or corporation, also consumers and society at large.

Socially responsible marketing makes sense and is justified as an appropriate business strategy or step and direction to go, not only because it broadens, but also expands the customer base or platform (Spitzer, 2010). In a deduction, this in turn would most likely trigger and turn to financial gains, profit and returns from enhanced financial performance.

In line of this study and present investigation, the following views underlying the theoretical framework and background are presented namely: "Skeptic, Utopian & Realist" as stated and explicitly named below and subsequently led to my own assertions and propositions for this study, present practical realities and future applications.

According to Hancock (2005), CSR can be viewed through 3 ways namely:

Skeptic view

According to this view, and notion, the notion of CSR is opposed, contrast and contrary to democracy and

freedom, frustrating business focus on its purpose of wealth creation and accumulation. Milton Friedman (1970) best defines this approach: “Few trends would so thoroughly undermine the very foundations of free society as the acceptance by corporate officials of a social responsibility other than to make as much money for their stockholders as they possibly can”, (p. 1–6).

Utopian view

A utopian view, notion and perspective of CSR reflects the idea that companies have a prima duty and obligation to anyone tied to their activities or impacted, their stakeholders rather than their shareholders, and especially the vulnerable that may be exploited by the company's operation. This perspective is linked to the work of Freeman (Freeman, 1984; Freeman, 1990; Freeman, 1999; Freeman et al., 2004) who hold to the stakeholder theory demanding that a corporation must recognise and respect the key aspirations and pursuits or goals of each of its surrounding stakeholders and key participants.

Realist view

This view prompted and brought an audible voice risen in momentum and tempo from an alliance model advocated by Patricia Werhane (2007, 2008). It states that CSR in clear terms is not just about whatever funds raisers or donor sponsors and expertise companies choose to invest in communities to help resolve social problems, rather, it is also about the integrity with which a company governs itself, fulfills its mission, lives by its values, engages with its stakeholders, measures its impacts and presents or disseminates its activities.

Results and discussion

‘CSR goes beyond just a coined term and embellishes the brand creating shared value, promoting brand reputation or image and building a brand equity.

Firm value activities as required must be substantially clear and visible to stakeholders (Godfrey et al., 2009) in – order to incorporate the benefits and gains of corporate philanthropy.

Inferring and suggesting from literatures, it is essential to say that it is not possible for a brand to have no brand equity aligning with Keller (1993) who opined and asserted that any potential touch or contact with a brand can influence its mental representation kind of information conveyed and manifested in the memory of the consumers. The framework applies the concept of appropriable value to the brand equity literature in line and consistency with the combinations of literatures on mergers and acquisitions (Barney, 1986; Ailawadi,

et al., 2001) and current managerial practice imbibed and observed in P&G value pricing (Keller & Lehmann, 2002; Krishnan, 1996).

The consumers' motivation or zeal and penchant for CSR and their perception of corporate brands (Mody et al., 2017), and consumer satisfaction (Yang et al., 2017) are crucial and essential factors dictating or driving and determining consumer loyalty (Yang & Yin, 2019). Companies can employ social media to actively disseminate appropriate information of the brand image to consumers (Cheung et al., 2019), and to significantly influence and shape the consumers' perception of the brand agreement with them by conveying the consistency of brand image.

Test 1 or verifying assumption

Is there a connection between the brand image identity and the corporate social responsibility roles of an organization?

This is the research question clearly connected to ‘hypothesis formulations combined from 1 & 2.

It is expected and by the underlying assumption prior to the survey and previous experiences a minimum of 75% respondents agree with this claim of brand connection, image identity and ‘CSR roles played by reputable organizations, this is set to the null hypothesis while the contrary is the alternative hypothesis that this claim is not true or should be rejected.

Null hypothesis

$$H_0 : p = 0.75$$

The null hypothesis is the working assumption that a minimum 75% respondents agree or conscious opinion of a strong relationship between brand image and the roles an organization plays in its corporate social responsibility, overwhelmingly found in this investigation all respondents interviewed agreed with this position presently.

Alternative hypothesis

$$H_1 : p \neq 0.75$$

At the; 10% level of significance;

CV: 1383.

Where;

$$\hat{x} = 1.0$$

Following the calculation, formula or expression given above for z – stat;

$$z_{cal} = \frac{1.0 - 0.75}{\sqrt{\frac{(0.75)(0.25)}{125}}} = \frac{0.25 \times 25}{\sqrt{0.1875}} \approx 14.4342$$

$$z_{cal} > z_{tab}(CV)$$

Since z – stat or z_{cal} ‘from formula is greater than CV or tabulated value, we accept the null hypothesis that a minimum of 75% respondents agreed with existence of a strong connection between the brand image and ‘CSR: corporate social responsibility roles of an organization or company.

Further verification & testing

Hypotheses 1 & 2 is clearly combined and verified as follows;

This hypothesis or combination is subject to further test verification, based on t – test and adopting the scaling or Likert rating scales and applying scale (1–5): 1-less agree or not sure, 2-mildly agree, 3-quite agree, 4-strongly agree, & 5-very strongly.

While findings and investigation from the polls showed 75% agree with this claim and hypothesis, another 25% bracket range are skeptical, less agree or not sure based on responses garnered and acquired from another section of the structured questionnaire and interview poll administered in the course of this investigation (Table 1).

Null hypothesis

$$H_0 : \mu \geq 3.375$$

The null hypothesis is the working assumption that the mean cannot be less than 3.375 based on previous

Table 1 Table showing the statistics

N	df	Mean	S.D
125	124	3.781	0.7562

‘Significant finding;
 $p > 0.05$ *

Table 2 Table showing the statistics

N	df	Mean	S.D	$T_c = -1.657$	t-cal	p-value
125	124	3.781	0.7562	-1.657	6.003	1.000

interview and poll conducted during the investigation and supporting or close to the previous test a minimum 75% respondents agree with this position.

Alternative hypothesis

$$H_1 : \mu < 3.375$$

At the; 5% level of significance;

Applying statistical tools and testing based on software application the following table is obtained as presented with detailed results (Table 2).

Conclusion/comments

The critical value for a left tail test is $t_c = -1.657$.

The p -value is $p = 1.000$, and since p -value is greater than or equal 0.05, the null hypothesis is not rejected.

The 95% confidence interval is; $3.647 < \mu < 3.915$.

Test 1 or Verifying assumption

How does ‘CSR from brand connection translate to financial performances, profitability and returns from repeat purchases and buying decisions? This combines research questions 2, 3 & 4.

This is the research question that leads, subsequently and connects the hypotheses from 3) & 4).

It is expected and by the underlying assumption prior to the survey and previous experiences a minimum of 85% respondents agree with this claim of brand connection, image identity and ‘CSR roles played by reputable organizations, this is set to the null hypothesis while the contrary is the alternative hypothesis that this claim is not true or should be rejected.

Null hypothesis

$$H_0 : p = 0.85$$

The null hypothesis is the working assumption that a minimum 85% respondents agree or conscious opinion that ‘CSR from brand connection influences and enhances repeat purchases and buying decisions, overwhelmingly large proportion found in this investigation over 95% respondents interviewed agreed with this position presently.

Alternative hypothesis

$$H_1 : p \neq 0.85$$

At the; 10% level of significance;

‘CV: 1383.

Where;

$$\hat{x} = 0.95$$

Following the calculation, formula or expression given above for z – stat;

$$z_{cal} = \frac{0.95 - 0.85}{\sqrt{\frac{(0.95)(0.05)}{125}}} = \frac{0.10 \times 25}{\sqrt{0.0475}} \approx 11.4708$$

$$z_{cal} > z_{tab}(CV)$$

Since z – stat or z_{cal} ‘from formula is greater than CV or tabulated value, we accept the null hypothesis that a minimum of 85% respondents agreed with existence of a strong connection between the brand image and ‘CSR: corporate social responsibility roles of an organization or company, triggering repeat purchases and purchases or buying decisions. This will in – turn significantly impact on financial performances reflecting on profitability, gains and returns ‘^.

Further verification & testing

This hypothesis is subject to further test verification, based on t – test and adopting the scaling or Likert rating scales and applying scale (1–5): 1-less agree or not sure, 2-mildly agree, 3-quite agree, 4-strongly agree, & 5-very strongly.

While findings and investigation from the polls showed approximately 95% as seen above well exceeding the initial hypothesized range of 85% actually agree with this claim and hypothesis, another just few 5% bracket range are skeptical, less agree or not sure based on responses garnered and acquired from another section of the structured questionnaire and interview poll administered in the course of this investigation (Table 3).

Table 3 Table showing the statistics

N	‘df	Mean	S.D
125	124	4.705	0.924

Table 4 Table showing the statistics

N	‘df	Mean	S.D	$T_c = -1.657$	t-cal	p-value
125	124	4.705	0.924	-1.657	5.808	1.000

Significant finding;
 $p > 0.05$ *.

Null hypothesis

$$H_0 : \mu \geq 4.225$$

The null hypothesis is the working assumption that the mean cannot be less than 4.705 based on previous interview and poll conducted during the investigation and supporting or close to the previous test a minimum 75% respondents agree with this position.

Alternative hypothesis

$$H_1 : \mu < 4.225$$

At the; 5% level of significance;

Applying statistical tools and testing based on software application the following table is obtained as presented with detailed results (Table 4).

Conclusion/comments

The critical value for a left tail test is $t_c = -1.657$.

The p -value is $p=1.000$, and since p -value is greater than or equal 0.05, the null hypothesis is not rejected.

The 95% confidence interval is; $4.541 < \mu < 4.969$.

ANOVA Test

In a further presentation and analysis of the ‘ANOVA one – way test was done to compare and do a variance analysis of two grouped data captured from the management team and public domain:

Perception of management team, employee and public domains on risks & mitigation, climate change, brand culture and relationship:

A composite poll was conducted as included in the questionnaire to capture the general and overall perception and consciousness level of the corporate organization, firms, employee and public domain on the relationship between brands, financial performances, risks & mitigation. Climate change and brand culture’s relevance tied with investments as a culture to be drafted into the brands and ‘CSR.

The outcome of this composite poll and data capture is presented based on the data summary and ‘ANOVA statistics explicitly summarized below:

Observations and ratings: based on Likert ratings (1–5)
(Table 5)

Table 5 Ratings (LIKERT) of observations polled from organizations & public domains on perceptions of risks & mitigation, climate change, brand culture and their relationship

Group 1 Observation: (ratings)	5	4	3	4	5
Group 2 Observation: (ratings)	4	5	5	4	4

N.B

Group 1: Organizations, corporations and firms.
Group 2: Public domains and consumers.

Calculations: ANOVA Estimates

DATA Summary
(Table 6)

Table 6 Summarized statistics from the group observations from organizations and public domains on perceptions of risks & mitigation, climate change, brand culture and relationship

	N	Mean	Std. dev	Std. err
Group 1	5	4.2	0.8387	0.3742
Group 2	5	4.4	0.5477	0.2449

ANOVA Summary
(Table 7)

Table 7 ANOVA statistics and summary on perception of risks & mitigation, climate change, brand culture and relationship

Source	Df	SS	MS	F	P
Between Groups	1	0.1	0.1	0.2	0.6666
Within Groups	8	4.0002	0.5		
Total	9	4.1002			

p-value: 0.66659.

F: 0.2449.

Comment(s)

As seen above the p-value (> 0.05) implying the assumption of the composite relationship existing and connecting the brands, investment risks; investment risks as a part of brand culture and the overall perception shown and demonstrate by the corporate organization, top management team or echelons, employees and public domain is perceived overall high.

CSR mediating from brand reputation translation to brand equity relationship
(Table 8)

$$BE = \alpha + \beta.BR$$

SEM: Brand equity, CSR mediated and relationship from brand reputation:
(Table 8)

Comment(s)

The high R – square value justifies the relationship; brand reputation from CSR mediation would translate to brand equity.

Corporate financial performances & brand relationship

Obviously from the previous research question in 4);

A variant of the research question as presented:

How can an we establish a connection and relationship between CSR activities of corporations and their financial outputs or returns?

It is drawn and verified as hypothesized that;

CSR can be a tool to enhance the financial performance of the company, as a tool and means of gaining a competitive edge or competitive advantage by embellishing and promoting the brand for brand reputation and equity.

$$CFP = \alpha + \beta.BR$$

SEM: Corporate financial performances, CSR and brand reputation:

Table 8 SEM: CSR mediating from brand reputation translation to brand equity relationship

Parameters:	β	R ²	α		
CSR brand reputation – brand equity	0.3522	0.7845	2.739		
Parameters:	β	R	t	p-value	SE _{Rβ} :
Brand reputation (CSR) – brand equity	0.3522	0.8...	2.2533	<.00001	0.1563

Table 9 SEM on CSR, corporate financial performance and brand relationship

Parameters:	β	R ²	α
Corporate financial performance – brand reputation	0.9977	0.9512	3.3862

Table 10 '8EM: Corporate financial performances, 'CSR and brand reputation

Parameters:	β	R	t	p – value	SER _p :
Corporate Financial Performances (CSR) – brand reputation & culture	0.9977	0.9753	2.2538	<.00001	0.4427

Comment(s)

Interestingly; the relationship between brand reputation from (CSR) and corporate financial performance and brand reputation excitingly shows high R – squared values and other parameters in the present investigation and experimental survey, poll and analysis justifying and pointing to the fact that ‘CSR from brand reputation and equity can be used as a tool to enhance and increase financial performances of organizations if applied.

Literatures and past researches as revealed and in line with the usual conception and notion of ‘CSR as a formative contract created from different or various dimensions revealed and described those dimensions of ‘CSR as; economic, legal, ethical, and discretionary expectations (philanthropic): (Lee et al., 2013; Saeidi et al., 2015) or customers, employees, shareholders, environment, market, community among others (Turker, 2009; Fatma et al., 2014).

The ‘SEM analysis results as presented in Tables 9 and 10 on the relationship between corporate financial performances (CFP) and brand reputation as justified the economic interests and motives of corporations built around increased profitability and wealth creation or accumulation as revealed the p – value from this exceeding 0.05.

Further discussion

Theme: ‘Climate change, Models & Litigation, Estimates – Projections, CSR & Sustainable Marketing.

Climate change

This cannot be left isolated in the subject and field of “sustainable marketing, business environment, and environment or environmental protection” as a consequence of the pre and modern industrial revolution eras and economic activities that has culminated to drastic changes in the climate and ambient conditions following various phenomena comprising; “carbon cycle changes, emissions, carbon – dioxide,

greenhouse gas emissions, carbon sequestrations, arctic temperature variations and polar ice cap melting, pollution, even uncontrolled and unregulated nuclear emission”, sources, etc., could be extremely catastrophic or lethal.

Furthermore, to delineate this concept and phenomenon more vividly, it is necessary to examine some models and predictive tools that caption and extrapolate into future gas emission trends, while cognizant of the roles of litigations as well, and looking beyond the climatic models.

Issues, Impact, Environmental Sustainability and CSR

Any *predictions* or guess and forecasts of *future* glacio-eustatic sea-level change or variations are subject to large *uncertainties and fluctuations*, including *future* build – ups, accumulations or piles and levels of *greenhouse gas emissions*, how such emissions ... gas emissions follow different trajectories, depending on alternative demographic, economic and technological development paths (Fisher et al., 2007).

Numerous assessments have considered how atmospheric GHG concentrations could be stabilized or equilibrated at least (Fisher et al., 2007). The lower the desired or anticipated stabilization level, the sooner global GHG emissions must peak and decline (Fisher et al., 2007). GHG concentrations are unlikely to stabilize this century without major policy changes and aggressive steps or urgent actions (Rogner et al., 2007).² (Fig. 1)

Models & Projections

The *uncertainty or fluctuations* and unpredictability observed and seen in the temperature-carbon cycle feedback amplification parameter was derived from the recent model inter-comparison study back, C4MIP (Friedlingstein et al., 2006). Each of the model *projections*

² Shanks & Roegner (2007) Aquatic Climate Change Adaptation Services Program-Pacific publications.gc.ca > collection_2016 > mpo-df0 > Fs97-4-3049-eng

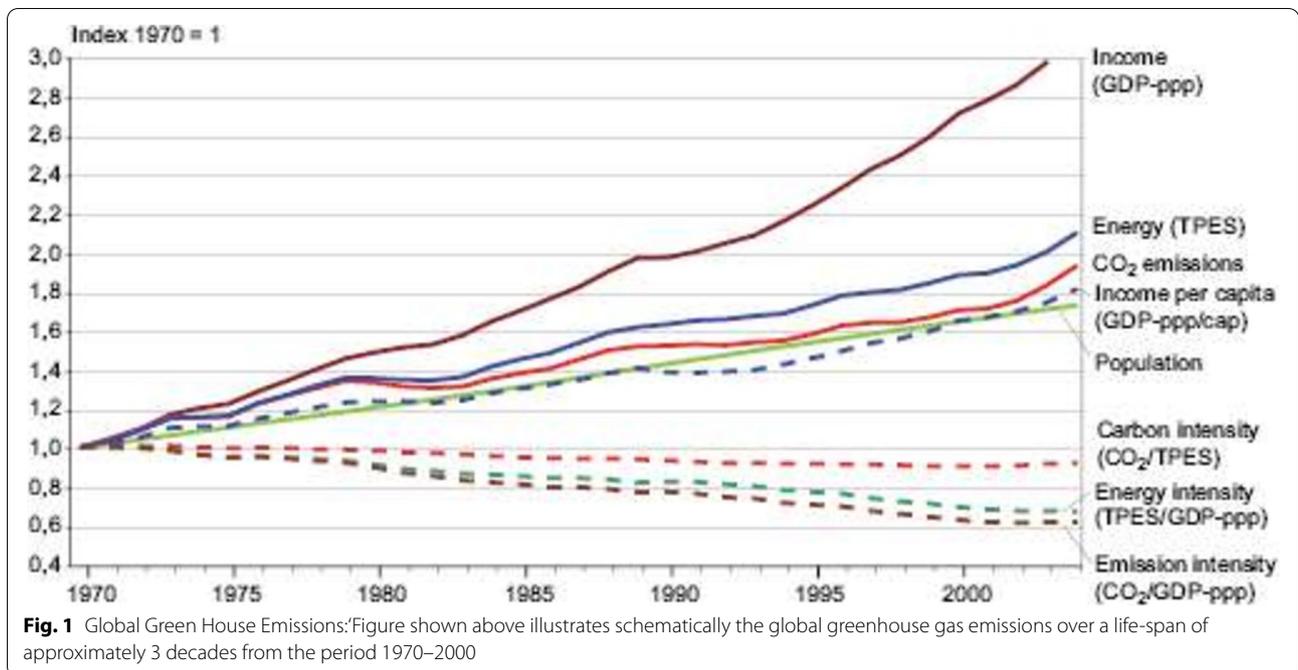


Fig. 1 Global Green House Emissions: Figure shown above illustrates schematically the global greenhouse gas emissions over a life-span of approximately 3 decades from the period 1970–2000

are treated with equal probability, likelihood chances or priority and no observational constraints nor restraints are applied or imposed.

Spanning over the past two previous decades, efforts to mitigate emissions of carbon dioxide and other greenhouse gases have centered around and driven around the goals of stabilizing or equilibrating atmospheric concentrations of these gases.

Efforts to mitigate carbon emissions, majorly carbon dioxide and other greenhouse gases have been intensely focused around the goal of stabilizing atmospheric concentrations of these gases.

This focus on atmospheric stabilization is historically rooted and grounded in the text of Article 2 of the United Nations Framework Convention on Climate Change (UNFCCC), in which is written: (Fig. 2)

The ultimate objective of this Convention ... is to achieve ... stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

(UNFCCC (UN Report, 1992)

Proposed Model for Sustainable Marketing

By way of propositions, and observations and findings stemming and emerging from this present study and investigation, an integrated and all - encompassing

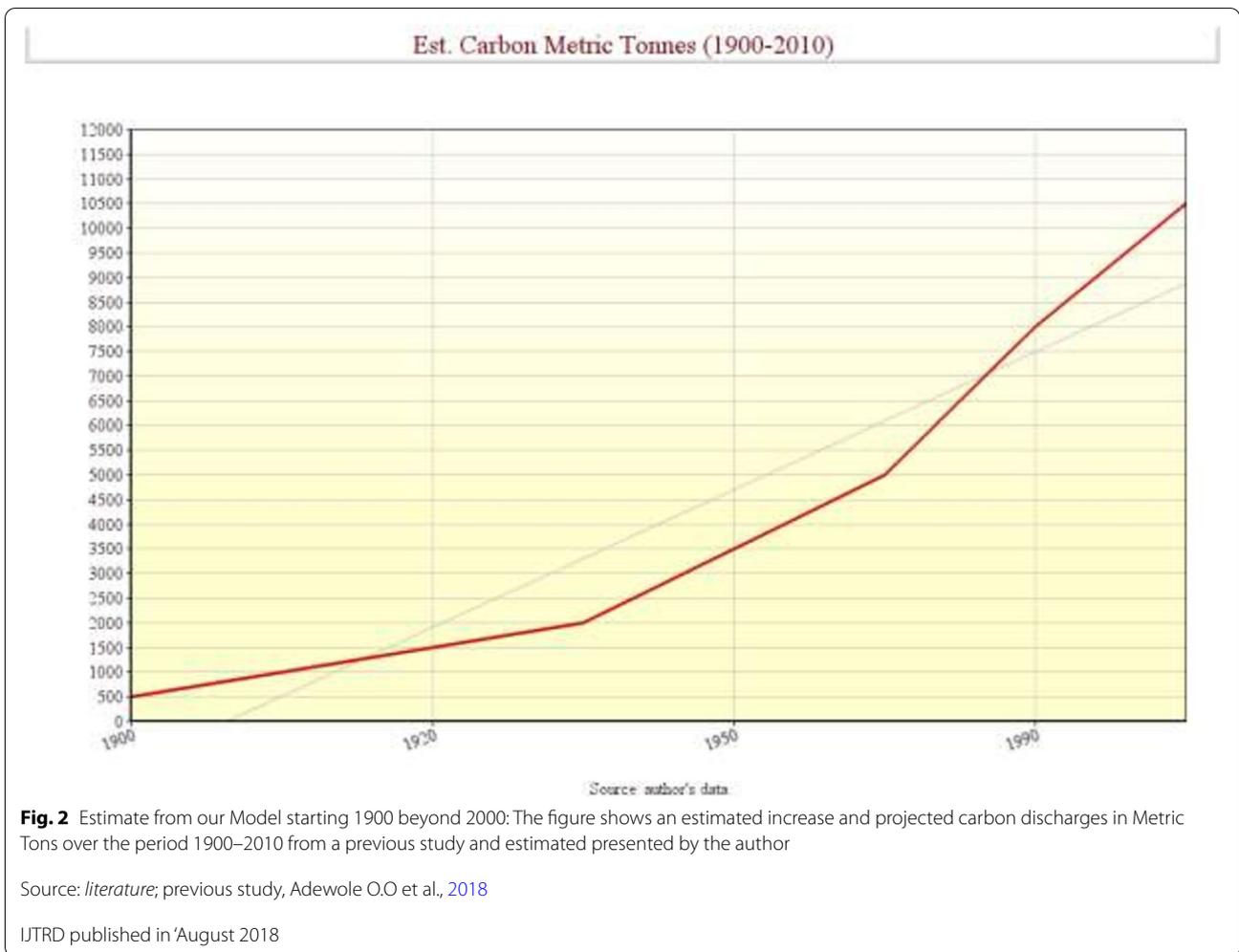
approach embedding the core attributes and values of sustainable marketing is proposed.

The proposed model is the one that integrates; “innovativeness, value based cores, strong cultural ties or traditions tied to brandings, equity and satisfaction” and embeds mitigation and action plans for climatic changes and environmental protection.

According to the IPCC’s 2014 assessment report & IPCC’s 2014 assessment report presentation: “Mitigation is a public good; climate change is a case of the ‘tragedy of the commons.

Examples of mitigation steps include phasing out fossil fuels by switching to low-carbon energy sources, such as renewable solar, wind, hydro and nuclear energy sources, and expanding forests and other “sinks” or absorbers to remove greater amounts of carbon dioxide from the atmosphere. Energy efficiency may also play a role for example, through improving the (Fisher et al., 2007). Another approach to climate change mitigation from the IPCC review (n.d) is climate engineering (IPCC, 2007) towards practical pragmatism.

Sustainable marketing plan in an effective and pragmatic context should embed satisfaction and mitigation, value based creation and all - encompassing stressing and embellishing the unique brand identity, strong cultural ties, for instance at the organizational and relational level as well and integrative in approach and style or applications (Figs 3, 4 and 5).



Implications for Practices & Management

In fact, ‘CSR can be an investment risk as a hedge against unnecessary risks in saving funds and spending expenditures, which is a viable and potential tool for management practices towards resource optimization, translating brand reputation to equity, achieving climate change mitigation and financial performances.

Conclusions

According to Radivojević et al. (2019) as mentioned earlier; “environmental sustainability seen as a crucial element of sustainable development dwells in a central position and key place in considering the long-term perspective and prospects of human survival and progress” (p. 473).

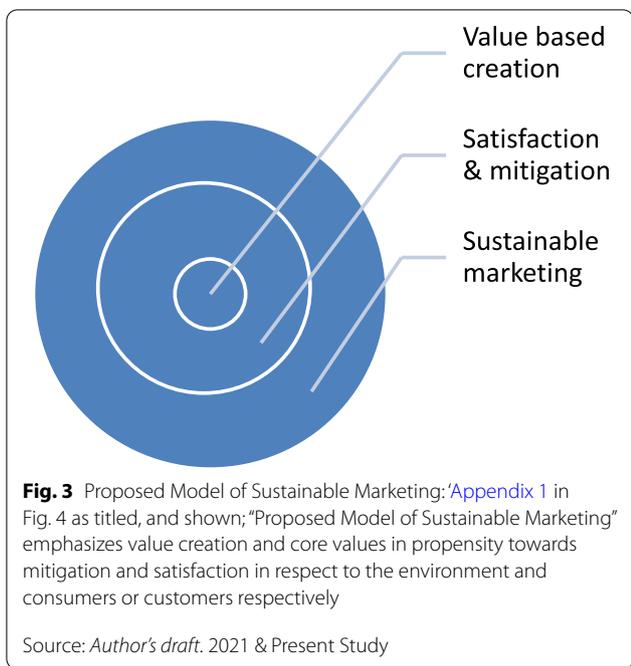
The theoretical framework around corporate social responsibility and extant literatures have led to the hypothesis frames as proposed, verified and presented in this research investigation and in addition carving and presenting new models.

Relevant, new and novel models have been presented in delineating these issues towards realism and pragmatism while emphasizing and stressing an integrative approach of sustainable marketing embedding climate change mitigation plans, innovativeness and value – based creation.

Every marketing concept and practice embraced should be socially responsible and lie within the target driven goal of sustainability, mitigation, climate friendliness and long term sustainable action plans within the expectation of a dream twenty-first century and modern day practice or models for sustainable marketing and business.

The sustainable company in this modern era is that one that goes extra miles and beyond its profit driven goals to be market oriented, highly innovative and fosters environmental protection and friendly norms within its strategic fit, goals and existing portfolios.

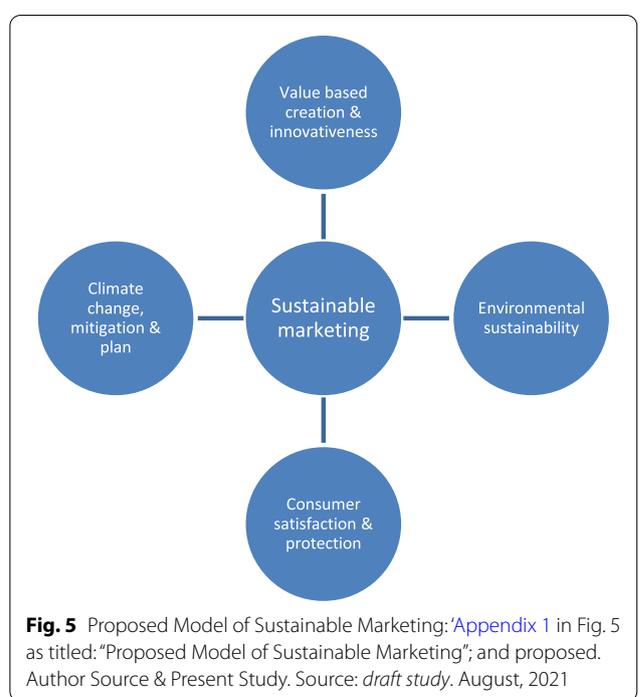
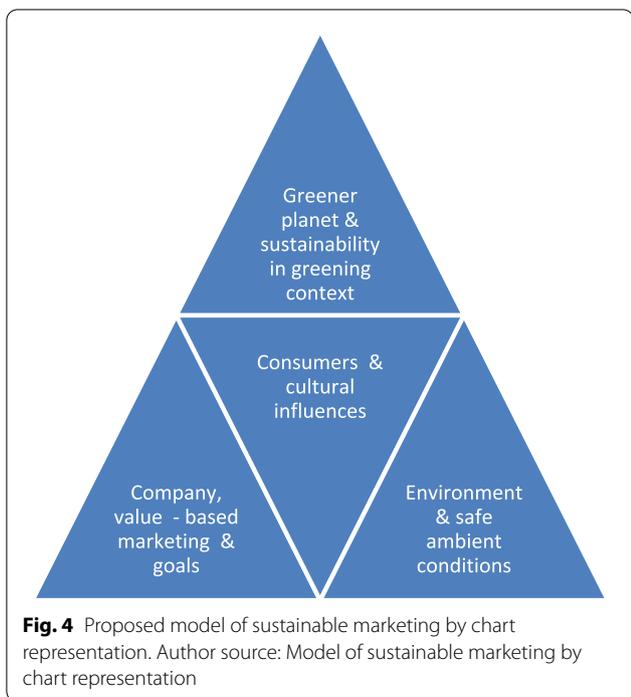
While the models could be extremely significant in gaining deeper insights and outlook into the future and possible carbon and green house emission gases and also get some assessment of the ‘GDP parameters



and economic impact assessment we need to still look beyond the models and predictive charts of climatic changes and capture into the legislatures, litigation measures and other parameters as well, this can also present a clear bearing and direction for future research investigation in examining the connection between ‘GDP parameters and economic impact assessment with brand and ‘CSR.

Brand reputation from ‘CSR mediation or mediated translates to brand equity as revealed by the results and analysis of this study as justified by the high R – value far exceeding 0.5. ‘^ This idea and finding is consistent with the literature as established by Mahmood & Bashir, 2020 that brand reputation is translated to brand equity.

The high R – value of 0.9753 between brand reputation and financial performances implies by adopting ‘CSR which enhances brand reputation and translates to equity; corporations, companies and organizations can use ‘CSR as a strategic tool for increased profitability and returns, while simultaneously holding and staying committed to their socially responsible roles in the interests of the society well – being and environment, consciously and avoiding negligent and dangerous practices that can adversely affect the environment and aggravate climate changes. Both public and organization domains as shown in the ‘ANOVA analysis as the p – value exceeds 0.05 at the set threshold limit or cut – off criterion and bound agree that ‘CSR is a part of the culture and essential component of the organization’s culture brand and structure as inferred. Invariably, and deductively, by taking strong cognizance of the brand knowing consumers advocate strongly for such brands and building the structure and template around a ‘CSR based – carved model, organizations in a face and sense of strong responsibility can take serious environmental courses of ‘CSR and thus doing the climate mitigation can be realistically pursued saving the planet for the present and long – term sustainability.



In addition, ‘CSR can be an investment risk as a hedge against unnecessary risks in saving funds and spending expenditures unaccounted for that goes into seeking redress against unfavorable law suits brought against them by plaintiffs but rather invest saved funds into plant operations, society’s well fares, and expansion of operations and production activities that contributes to economic gains, job expansion and profitability.

**Appendix I
Deductions**

The sustainable business and marketing is known to be the one that is socially responsible and prevents pollution.

Sustainable marketing is laid on the precepts and foundation stones or core – corners and pillars of corporate social responsibility, indeed this is the marketing practices that can foster intense drive for innovation, value driven piloted and engender overall sustainability.

Sustainable marketing is action driven, goal oriented, value – based creation and innovative.

Drafting; CSR into business models & strategies hybrid with climatic and environmental considerations towards building sustainable plans and pursuing long-term sustainable goals, by looking beyond immediate and present business gains while sourcing for profits would do a great good to the business, society or community and the entire world or planet at large.

From the reference sources 15 worst business case examples to exemplify the urgency and need for sustainable marketing and business environment in our planet and a dream twenty-first century of a safe cleaner and greener planet as stated and presented and justified by the emissions, models and trends below.³

As mentioned earlier, the two concepts or phenomena; “sustainable marketing and climatic changes” cannot be isolated rather should be treated and considered complimentary.

Appendix 1 in Figure 2 As subsequently presented next and below is a vivid graphic summary and illustration of the global carbon emission to greenhouse gas contributions from economic and industrial practices in the industries, GDP impact and intensity over a cycle and span of decades from 1970 till 2000.

This is on the increase in a highly increasing activities and vast industrialization regime.

Three models of sustainable marketing have been proposed as seen in this text and vividly given in this study in Appendix 1 in Figs. 3, 4 and 5 respectively.

Previous study and investigation of model based estimate of the Carbon emission and trends have been presented in Appendix 1 in Figs. 1 and 2 from 1970 to 2000 and 1900 beyond 2005 (*literature text & revelation*) respectively.

The increase seemed worrisome on the rise, however we have to look beyond the modeling, and shift to mitigation measures and pragmatic plans towards mitigation & realism.

A hybrid model encompassing the three core theories: “social contract, stakeholder and operational efficiency” in each of its own merits or advantages embedded and incorporated into the sustainable marketing scheme and business model can be potentially and tremendously useful and present huge benefits and gains to the organization or corporate entity that taps and key-into such in a real and ideal practical sense or manner.

A sustainable marketing planned and drafted around climate change concern, actions and mitigation efforts will go a long way to achieve a sustainable planet goals, vision, passion and dreams within the target and anticipations of a dream twenty-first century for a safer greener and sustainable planet.

Author’s source presentation & extraction(s): Model of sustainable marketing by chart representation, projections, climate change & greenhouse gasses – emissions.

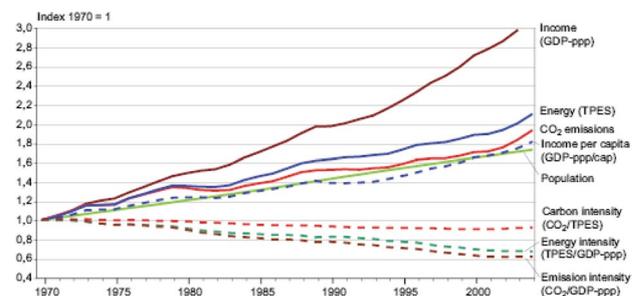


Fig. 1 Global Green House Emissions: Figure shown above illustrates schematically the global greenhouse gas emissions over a life-span of approximately 3 decades from the period 1970–2000

The figure shows increasing trends in the time-span for global greenhouse emission gases, energy and income indexes.

As the economic gains and benefits are annually and constantly increasing over the decades; borne out of

³ <http://www.businessinsider.com/the-15-worst-companies-for-the-environment-2009-9?IR=T#1-peabody-energy-15>

the vast increase industrial and economic boosts; the global gas emissions contributions or discharges to the environment and energy demand also increased proportionately.

This increased economic growths and income trends contributed to increased trend which manifests as seen by the 3 declining plots and line trends showing the ratio of economic gains and incomes; global greenhouse gases emissions and annual energy demand to GDP respectively.

■**: The thick continuous and broken light red lines represents income parameter (GDP-ppp) and emission intensity(CO₂/GDP-ppp) respectively.

■**: The thick continuous and broken thick red lines represent the carbon emission and carbon intensity (CO₂/TPES) respectively.

■**: The thick green continuous and broken thin green lines represent the population and energy intensity (TPES/GDP-ppp) respectively.

■**: The thick continuous blue line represents the energy (TPES) and the broken thin continuous lines represent the income per capital (GDP-ppp/cap).

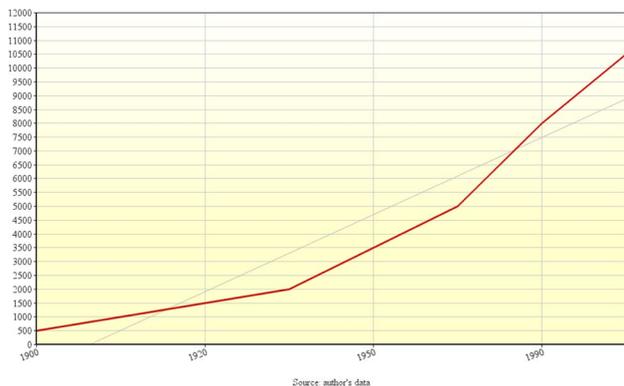


Fig. 2 Estimate from our Model starting 1900 beyond 2000: The figure shows an estimated increase and projected carbon discharges in Metric Tons over the period 1900–2010 from a previous study and estimated presented by the author

Source: literature; previous study, Adewole O.O et al., 2018

IJTRD published in August 2018

Obviously known and evidently obvious, the trend would continue to increase and no sooner to abate even with sharp and drastic policy measures been instituted as economic and industrial activities culminating to its increase continually increased over the past few decades, years and beyond.

Political actions, strong will and policy measures still have to be drastic, intensified and more aggressively increased for any hope in the nearer future.

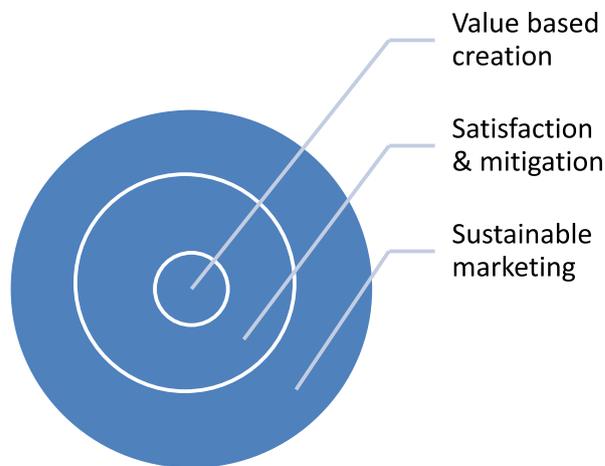


Fig. 3 Proposed Model of Sustainable Marketing: Appendix 1 in Fig. 4 as titled, and shown; “Proposed Model of Sustainable Marketing” emphasizes value creation and core values in propensity towards mitigation and satisfaction in respect to the environment and consumers or customers respectively

Source: Author’s draft. 2021 & Present Study

Extended Chart/Pyramid proposed

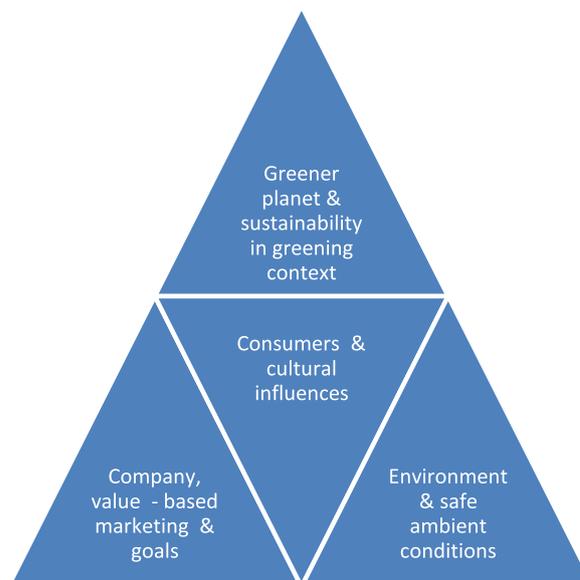
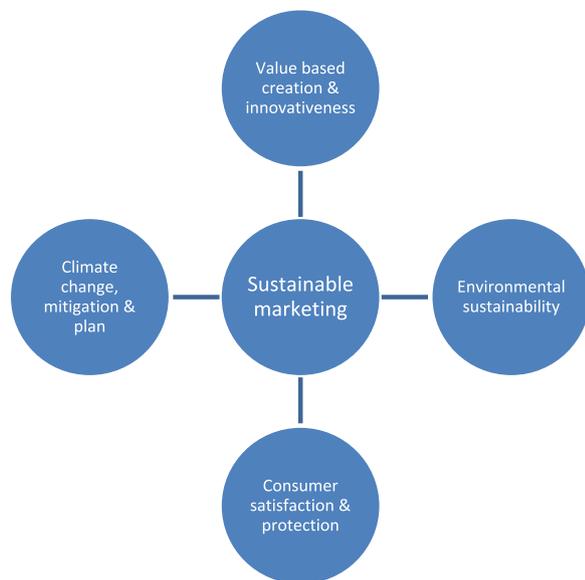


Fig. 4 Proposed model of sustainable marketing by chart representation. Author source: Model of sustainable marketing by chart representation Sustainable marketing plan in an effective and pragmatic context should embed satisfaction and mitigation, value based creation and all - encompassing stressing and embellishing the unique brand identity, strong cultural ties, for instance at the organizational and relational level as well and integrative.



Author Source & Present Study:

Source: *draft study*. August, 2021

Fig. 5 Proposed Model of Sustainable Marketing: 'Appendix 1 in Fig. 5 as titled: "Proposed Model of Sustainable Marketing"; and proposed. Author Source & Present Study

In essence and conclusively an integrated model approach that integrates "sustainable marketing, climate change and environmental sustainability" is suggested and proposed for sustainable marketing.

This integrative approach sought is qualitatively illustrated schematically by the two charts presented and given in Appendix 1 in Figs. 4 and 5 above and next below or above.

Source materials:

Yang et al., (2017). The Effect of Service Quality among Customer Satisfaction, Brand Loyalty, and Brand Image. <https://ieeexplore.ieee.org/abstract/document/8290299>.

Yang & Yin (2019). Research on the Socialization Path of Virtual Brand Community Members: A Double Intermediate Perspective of Satisfaction and Identity. *Journal of Xi'an University of Finance and Economics*, 32 (6), 103–110. <https://doi.org/10.19331/j.cnki.jxufe.2019.06.013>

Abbreviations

CSR: Corporate social responsibility; CFP: Cooperate financial performance; CV: Coefficient of variance or variations; CO₂: Carbon – dioxide; Est: Estimated; GHGs: Green House Emission Gases; G – 7s: This designates the 7 great and global economies comprising; "Great Britain, US, Germany, France, Canada, China, Australia"; GDP: Gross Domestic Product; IPCC: International Protocols on Climate Change; IJTRD: International Journal of Trends in Research and Development;

NEPA: National Environmental protection Agency; NGOs: Non – governmental organizations; ppp: Parts per million; SER: Standard error of mean; UNFCCC : United Nations Framework Conventions on Climate Change; $z_{cal} > z_{tab}$ (CV) : z – tabulated: tab) and z – calculated: cal); t-cal: calculated t-test statistics from formula or expression; t_c : critical value from the t-test; μ : mean or sample mean; μ_0 : hypothesized or drawn population mean; S.D.: Standard deviation.

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Author's contributions

The author did the entire work encompassing; the preliminary questionnaire and interview draft, the data collection process and field work, the data compilation and refinement, analysis of data and the final reporting with the entire communication process. The author(s) read and approved the final manuscript.

Author's information

ADEWOLE Oluokorede is the founder and manager of "Literary Edifice" and "Global Resources Formazione"; these institutions have been strongly committed to intensive research, even though the full incorporation processes are still on - going.

The parent body "Campagna Global Literary Edifice" was fully incorporated November, 2016 in Lagos.

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Availability of data and materials

The data applied and used in this research work were from questionnaire administration and personal interview conducted by the author in the course of this research project and investigation.

The data was compiled and available with the author on request.

Declarations

Competing interests

The author declares there is no competing interest in any form, related or such.

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