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Article

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Environmental Sustainability and its Growth in Malaysia by Elaborating the Green Economy and Environmental Efficiency

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ABSTRACT

Numerous countries have sorted out energy awards as an instrument to promote energy efficiency (EE), to contribute towards energy sustainability and to give a component to associations to constantly hunt benchmark and recognize activities and best practices in EE. Most of companies to invest in the reusing and reuse of materials, the environmentally inviting technology, inward training on green economy, the remainder of the electorate and the buy and utilization of materials with less impact essentially in light of the fact that they trust that investment to guarantee the safeguarding of nature around. It is additionally a marker of an effective environmental sustainability in Malaysia dependent on the reactions are broke down from an assortment of high technology-based companies working in Kedah, Malaysia. Malaysia is focused on cultivating the development of a clean and efficient economy; that is, a "green" economy. This implies encouraging the development of green businesses and green items, which thus will make "green jobs." At the fundamental level, there exists a misallocation of resources. As Malaysia advances greater environmental awareness, it is imperative to establish national benchmarks by which to measure progress toward a greener economy. This investigation tries to find the condition of knowledge in Malaysia on the green economy. The result additionally shows that an expansion in the prioritizing green economy anticipated by the companies working in Malaysia will prompt increment in green monetary sustainability. This suggests the progress towards the green economy in Malaysia is likewise impacted by the view of its significance later on. The investigation uncovers that expansion in green economy awareness among the firms will prompt increment in the level of environmental sustainability, in this way improving the present condition of green economy in Malaysia.

Keywords: Green Economy, Environmental Efficiency, Sustainability, Energy Efficiency, Malaysia, Companies, Growth
JEL Classifications: Q55, Q50

1. INTRODUCTION

The Organization for Economic Cooperation and development characterized that the green economy as the arrangement of exercises which produce goods and services to measure, prevent, limit, limit or right environmental harm to water, air and soil, just as issues identified with waste, noise and ecosystems. This incorporates cleaner advances, items and services that lessen environmental risk and limit pollution and resource use. Diener and Terkla (2000) said that it included cleaner advancements, items and services that diminish environmental risk and limit pollution and resource use, and the arrangement and conveyance of the environmental resources of water, recuperated materials, and clean energy. A green economy aims at improving human prosperity and social equity, while significantly decreasing environmental risks and biological shortages. It is low-carbon, resource-efficient and socially inclusive. Growth in salary and work ought to be driven by public and private ventures that diminish carbon dioxide (CO_2) and other non-CO_2 emissions and pollution, upgrade energy and resource efficiency, and prevent the loss of biodiversity and

ecosystem services (UNEP, 2011). Moreover, an increase in the green economy priority (GEP) by the companies increases its sustainability in the economy.

Inclusive green growth endeavours to give an answer for the joint goals of financial growth, environmental sustainability and social inclusiveness. Ideas, for example, green growth, green economy, new climate economy and low-carbon development have created close by one another, with somewhat various definitions. On a basic level, they are for the most part predictable with one another – mentioning that financial development (for example growth) is lined up with environmental sustainability (for example green) without undermining social equity (for example inclusive). The distinctions concern primarily the inclusion of environmental challenges – for example regardless of whether these are limited to climate change or all the more broadly characterized (NCE, 2014; UNEP, 2011; World Bank, 2012a).

Malaysia isn't saved from the environmental debate related with the green economy these days. Malaysia as an industrialized economy, which is moved from material creation to manufacturing. Malaysian manufacturing creation expanded 6.5% in November 2016 over that month in the earlier year (Figure 1). Manufacturing Production in Malaysia found the middle value of 5.18% from 1991 until 2016, achieving an unsurpassed high of 38.45% in January of 2000 and a record low of −44.43% in June of 1994 (Trading Economics, 2017). The manufacturing enterprises as of late play the fundamental contributors to Malaysian monetary growth. Yet, the issue is quick industrialization has hindering impact on the earth because of the expansion in the pollution, waste and fast consumption of natural resources (Shahbaz et al., 2013).

1.1. Sustainability in Malaysia

As indicated by the Ninth Malaysia Plan, 9MP, Sustainable Development in Malaysia has dependably been considered adequately and influenced the nation to be positioned with respect of environmental sustainability 38th among 146 countries around the world, and the second in Asia as to environmental sustainability (Figure 2). What's more, an Environmental Performance Index Study positioned Malaysia as the ninth among 133 countries dependent on the endeavours taken to decrease environmental weight on human wellbeing and ecosystem protection vitality (Ali and Haseeb, 2019). In the 9MP in accordance with the ninth guideline of Islam Hadhari, environmental stewardship keeps on being elevated to guarantee that the harmony between development needs and the earth exist. In Malaysia, environmental procedures are likewise adjusting from remedial towards manageable orientation approaches. Environmental projects are being encouraged to integrate provincial and squatter territories management.

1.2. Energy Efficiency (EE)

In Malaysia, there are limited writing on EE practices for green office building occupants. In any case, couple of researchers, for example, Hassan et al. (2015), Aghili et al. (2016) and Zaid et al. (2017) led examines on EE management techniques for green structure as a rule. Shafii (2008) and Zaid et al. (2015) affirmed that there is no far-reaching EE practices for green structure occupants in Malaysia. In addition, GBI does not rate how buildings are worked rather it just rates how green buildings in Malaysia are designed (Zaid and Kiani, 2016). Along these lines, there is a requirement for greater involvement on the human viewpoint to accomplish the goal of green buildings in Malaysia (Figure 3).

1.3. Environmental Efficiency

The effect of climate change, pollution, water shortage and other resource use issues will turn out to be increasingly noteworthy, especially for developing economies and particularly those helpless against drought, flooding and other climate limits (Sitorus, 2018).

Figure 1: Manufacturing production of Malaysia

Figure 2: Environmental sustainability

Figure 3: Energy efficiency

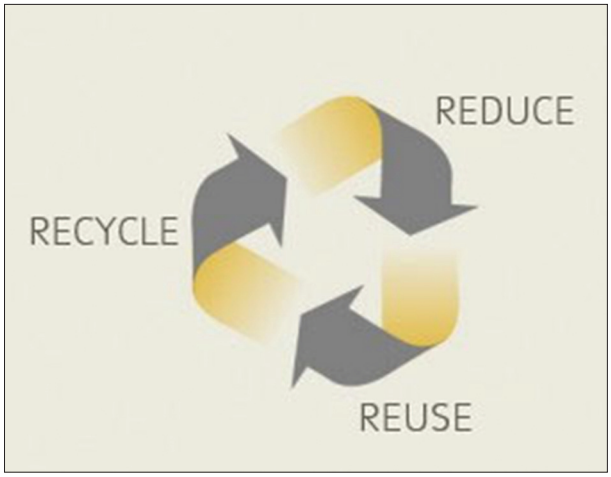
Environmental efficiency is gotten from eco-efficiency, which is characterized by the World Business Council for Sustainable Development as the item or administration esteem partitioned by its effect on nature (Verfaillie and Bidwell, 2000) (Figure 4). First displayed in 1992, eco-efficiency has gotten impressive consideration and has been widely connected at various dimensions as of late (Li et al., 2010). Numerous evaluation devices have been created following the idea of eco-efficiency. Assefa et al. (2007) proposed the Eco Effect framework for assessing the environmental efficiency of buildings, which is valuable for existing buildings just as buildings in configuration phase. Whenever Comprehensive Assessment System for Building Environmental Efficiency was divulged, assembling environmental efficiency (BEE) pulled in wide consideration in the structure management field.

2. LITERATURE REVIEW

The Organization for Economic Co-activity and Development (OECD) advances green growth, recognizing that "green and growth can go connected at the hip" by promoting financial growth and development, and in the meantime guaranteeing that natural resources keep on giving the resources and environmental services on which human prosperity depends. The OECD green growth strategy gives a noteworthy framework to encourage the fundamental conditions for innovation, venture and rivalry that can offer ascent to new wellsprings of monetary growth. In a progression of arrangement reports, the OECD laid out a central role market instruments should play in guaranteeing the dispersion of clean technologies and other environmental goods and services internationally (OECD, 2010, 2011). This includes getting the value right, encouraging investments in green technologies, eliminating fossil fuel appropriations and presenting restorative taxation. The OECD way to deal with green growth has a social dimension to it. A greener growth is required to address the social issue of high unemployment in OECD countries because of the 2008-2009 financial recessions (Sun and Wang 2018; El-Gali, 2018).

Saadatian et al. (2012), Malaysia is a nation which has ratified Kyoto Protocol and has chosen to be a created nation by 2020. In this manner, it needs to satisfy the necessities of being a created nation, in financial and innovation aspect as well as in various aspects of manageable development. Not many investigations have been embraced to demonstrate the endeavours and initiatives of Malaysia in the domain of sustainability. This examination has endeavoured to investigate Malaysian endeavours and initiatives and discover its relevance to sustainability through usage-chronicled strategy. It has likewise proposed an answer for encourage the progress towards joining sustainability in Malaysia. The result will toss lights for the academicians and policy producers who are working on sustainability topics.

Figure 4: Environmental efficiency



For an age, governments around the globe have been focused on manageable development as a policy objective. This has been bolstered by a variety of new approaches going from worldwide understandings, to national systems, environmental laws at numerous dimensions of government, local projects, and nearby plans. Regardless of these endeavours, many years of logical observing show that the world is no nearer to environmental sustainability and in numerous regards the circumstance is deteriorating. This paper contends that a noteworthy contributing element to this circumstance is policy usage disappointment. An orderly survey of the writing uncovers that the inability to accomplish the proposed results of environmental strategies is because of financial, political and correspondence factors. Conflict between the goals of environmental arrangements and those concentrated on financial development, a lack of incentives to actualize environmental strategies, and an inability to communicate targets to key stakeholders are for the most part key factors that add to the inability to accomplish environmental sustainability Marc et al. (2017) and and Haseeb et al. (2019).

Environmental Sustainability Assessment for Information Technology and select a catalog portfolio of significant publications as indicated by the impression of authors of this examination. Sartori et al. (2014) for this portfolio the bibliometric examination went for structure learning on the accompanying most exceptional terms: Authors, articles journals and keywords regarding the matter. This is an exploratory, descriptive, quantitative, qualitative investigation utilizing the instrument Knowledge Development Process from a constructivist viewpoint (Sundjo and Aziseh, 2018). As a result, we chose 25 pertinent articles and 416 articles referred to in the references, which speak to the bibliographic portfolio. The bibliometric examination of articles in the Bibliographic Portfolio and their references uncovered that the most incessant terms were as per the following: the diary "relationship for computing machinery computing surveys" and "management information systems quarterly"; the article "data innovation and authoritative execution: An integrative model of information Technology business esteem" and "past the business case for corporate sustainability"; the watchwords "data technology" and "sustainability"; and the most referred to authors were: Marie-Claude Boudreau, Tom Butler, Adela Chen, Jason Dedrick, Robert Sroufe, Richard Watson, and Nigel Melville. These results are particular because of the delimitations established by the authors of the present examination and the process utilized. Be that as it may, it is general and it tends to be utilized by different researchers in this or different fields.

3. RESEARCH METHODOLOGY

The methodology is the systematic, theoretical examination of the techniques connected to a field of study. It includes the theoretical investigation of the assemblage of techniques and standards related with a branch of learning.

The methodology is the general research strategy that diagrams the manner by which explore is to be embraced and, in addition to other things, recognizes the strategies to be utilized in it. These strategies, depicted in the methodology, characterize the methods or methods of data collection or, some of the time, how a particular outcome is to be determined. Methodology does not characterize explicit techniques; despite the fact, that much consideration is given to the nature and sorts of procedures to be followed in a specific system or to accomplish a goal.

3.1. Sources of Data Collection

The data has been collected through primary and secondary sources. Primary data has been collected through the structured questionnaire and secondary data collected from official publications, newspapers, journals, magazines etc.

3.2. Sample Size

A sum of 46 companies was chosen from a wide scope of ventures, for example, manufacturing, services, and primary production.

3.3. Sample Design

Convenience sampling is utilized as this is the most effortless strategy for gathering samples for improving the questionnaire A convenient sample comprises of subjects incorporated into the examination since they happen to be in the ideal spot at the opportune time (Polit and Hungler, 1993).

3.4. Area of the Study

This examination centres on green economy in Malaysia. The investigation comprises of field-based review of high technology-based firms at Kulim Hi-Tech Park, Kedah, Malaysia.

3.5. Tools used for Data Collection

The organized questionnaire verified the going with issues: Company data, the nature of the business and the proprietor directors' desires for the green economy; the environmental practices looked for after by the business notwithstanding the drivers for their dedication; their clear environmental affect how the proprietor administrators get ENS, and method and execution.

3.6. Method used in this Study

The methodology utilized depends on ordinary least squares (OLS). OLS models expect that the expert is fitting a model of a connection between at least one informative variable and a consistent or possibly interval outcome variable that limits the total of square mistakes, where a blunder is the distinction between the real and the anticipated estimation of the outcome variable. The most widely recognized analytical strategy that uses OLS models is linear regression.

For the most part, OLS estimation is utilized to estimate the parameters in different regression. characterized the suspicions of OLS are that lingering mistakes ought to be ordinarily disseminated, have equivalent variance at all levels of the independent variable known as homoscedasticity and be uncorrelated with both the independent variables and with one another. Be that as it may, OLS estimation in the various regression are influenced by the occurrence of outliers and missing data. In the event that the data contains missing data or outliers, at that point the sample estimates and results can be misleading.

3.7. OLS Estimation

OLS estimation applied by Assuming that a set of n paired observations on (x_i, y_1), i=1, 2… n is available which satisfy the linear regression model $y+\beta_0+\beta_1 X+\varepsilon$. So, we can write the model for each observation as $y_i=\beta_0+\beta_1 x+\varepsilon_i$, ($i$ =1, 2…n).

The solutions of β_0 and β_1 are obtained by setting

$$\frac{\partial S(\beta_0,\beta_1)}{\partial \beta_0}=0 \tag{1}$$

$$\frac{\partial S(\beta_0,\beta_1)}{\partial \hat{a}_1}=0 \tag{2}$$

This gives the ordinary least squares estimates b_0 of β_0 and b_1 of β_0 as

$$b_0=\bar{y}-b_1\bar{x}$$

$$b_1=\frac{S_{xy}}{S_{xx}} \tag{3}$$

Where,

$$S_{xy}=\sum_{i=1}^{n}(x_i-\bar{x})\,(y_{1-}-\bar{y}),S_{xx}=\sum_{i=0}^{n}(x_i-\bar{x})^2\bar{x}$$
$$=\frac{1}{n}\sum_{i=1}^{n}x_i,\bar{y}=\frac{1}{n}\sum_{i=1}^{n}y_i \tag{4}$$

The OLS is used to find the best estimate of β's with the least squares criterion which minimizes the entirety of squared separations of the majority of the focuses from the genuine observation to the regression surface. OLS estimators are sensitive to the nearness of observations that lie outside the standard for the regression model of interest. The OLS estimation strategy in residual structure can be represented as:

$$Min=\sum_{i=1}^{n}e_i^2 \tag{5}$$

Where, e_i^2 or $\sum(Y-\hat{Y})^2$ indicated as the entirety of the squared residual between the actual and anticipated values. This strategy comprises of the minimization of the aggregate of the squared residuals. Be that as it may, regardless of the computational effortlessness of LS technique, this estimator is currently being criticized increasingly more for its dramatic lack of robustness. Also, even there is a solitary exception, it can impact the results of regression equation.

Using OLS as elective estimators utilizing a similar arrangement of explanatory factors. OLS is alluring because of its simplicity of computation and simplicity (Hutcheson, 2011). Expecting environmental sustainability is linear, we determine:

$$ES_t=\beta_0+\beta_1 GEA_t+\beta_2 SDA_t+\beta_3 GEK_t+\beta_4 ISD_t+\beta_5 GOS_t+\varepsilon_t \quad (6)$$

Where, *ES* is environmental sustainability at time *t*, green economy awareness (*GEA*) is *GEA* at time *t*, sustainable development activities (*SDA*) speaks to maintainable advancement activities, Green economy knowledge (*GEK*) indicates green economy learning at time *t*, interest in sustainable development (*ISD*) and *GOS* are investment in practical improvement and green economy operation sustainability, separately, at time *t*. ε is an idiosyncratic error term thought to be indistinguishably distributed and independently. The consistent is indicated β_0 while β_1 to β_5 are the coefficients appearing much a one-unit increment in every individual variable will influence the environmental sustainability.

3.8. Statistical Tools used in this Study

In this paper we use various statistical tools i.e., OLS regression, skewness, kurtosis and Multi-collinearity to test the high correlations between the variables.

4. RESULTS AND DISCUSSION

The fundamental descriptive measurements of the significant variables utilized in the examination are displayed in Table 1. The mean speaks to the average value of every variable in connection to its absolute observations. The standard deviation demonstrates the level of dispersion between observations. This aides in identifying the presence of outlier in the data generation process and indicates the likelihood of having heteroscedasticity in the relapse investigation. From the results in Table 1, it is seen that the standard deviation is portrayed by low dispersion, which means the absence of outliers and less probability of experiencing the issue of heteroscedasticity in the data.

The ordinariness of the data is explored utilizing skewness and kurtosis. The accompanying variables; green economy sustainability (GES), *GEA*, GEP, ENS, potential impact on environment (PIE), turnover (TRO) and *ISD* are contrarily skewed. The most contrarily high skewed variable is *GEA* trailed by PIE and the least adversely skewed variable is an *ISD* pursued by GEP. In any case, ENE, *SDA* green economy snags (GEO), green economy operational efficiency (GOE), partnership, confirmation (CRT) and *GEK* are decidedly skewed. The most emphatically high skewed variable is GOE and the least is observed to be GEO. A portion of the measurements, for example, *GEA* and GOE are separately adversely and emphatically individually a long way from the edge standard of zero and the total value of 1.96 bound recommended in Haniffa and Hudaib (2006) and the supreme value of under two as in Curran et al. (1996). Be that as it may, the values are found not past the value of three proposed by Kline (2011) which is contended to cause an issue of non-ordinary dissemination. Consequently, unmistakably there is no adequate proof to presume that the data are not typically appropriated.

Table 1: Descriptive statistics of significant variables

Variable	Mean±Standard deviation	Skewness	Kurtosis
GES	2.703±0.446	−2.378	8.991
ENE	1.196±0.435	2.384	8.347
GEA	0.978±0.147	−3.559	14.022
GEP	4.848±0.363	−0.309	2.580
ENS	1.065±0.219	−1.937	4.751
SDA	1.152±0.382	3.179	13.877
PIE	3.739±0.612	−2.739	10.943
TRO	3.652±0.566	−1.361	3.873
GEO	2.891±1.636	0.207	1.363
GOE	1.082±0.190	3.043	13.479
PTN	1.109±0.315	2.514	7.322
CRT	1.261±0.575	2.785	12.305
ISD	2.500±1.049	−0.058	1.837
GEK	1.870±0.806	0.238	1.611

GES: Green economy sustainability, ENE: Environmental efficiency, *GEA*: Green economy awareness, GEP: Green economy priority, ENS: Environmental sustainability, *SDA*: Sustainable developmental actions, PIE: Potential impact on environment, TRO: Turnover, GEO: Green economy obstacles, GOE: Green economy operational efficiency, PTN: Partnership, CRT: Certification, *ISD*: Investment in sustainable development, *GEK*: Green economy knowledge

In addition, the normality of the data is likewise tried utilizing the kurtosis statistics. The data demonstrate the presence of leptokurtic, mesokurtic and platykurtic distribution. The case of the leptokurtic appropriated variable is *GEA* which demonstrates a value of 14.022 and *GEK* with a value of 1.611 which speaks to a platykurtic distribution. Regardless of the way that 14.022 is far over the benchmark value of three as underlined in Bai and Ng (2005) contends that kurtosis statistic demonstrates a serious non-normal distribution when its value surpasses 20. This further approves the normal distribution of the data as uncovered by the skewness statistics.

The descriptive investigation shows that, as of now, the companies apparent that the advantage of green economy can be really feasible through the different advantages of ENS practice (Tabassum et al., 2018). This incorporates, through advertising for the business or what is called higher reputation, customer retention, entering new market, cost control and improving relations with distributors. These are appeared by 44 respondents speaking to 96%, 44 respondents speaking to 96%, 43 respondents speaking to 93%, 42 respondents speaking to 91% and 42 respondents speaking to 91% out of 46 respondents for each situation individually. It, in this way, demonstrates the at the present express the advantage of green economy can be really feasible through advertising for the business or what is known as higher reputation, customer retention, infiltrating new market, cost control and improving relations with distributors.

Besides, all the examined companies expect that their firm green economy practice will increment amid the following a year. Also, about 85% of the companies evaluated green economy as the most significant program for the eventual fate of their companies. The green economy practice is additionally seen to highly build the dimension TRO in the following 3 years. This is seen by about 70% of the respondents. While 26% of them trust that there will be a steady rate of TRO in spite of rehearsing green economy by the companies. This is a solid pointer towards a high dimension of worthiness of the green economy practice by the sampled companies. The dimension of adequacy is additionally observed by the supposition of the companies to be formally guaranteed to demonstrate their responsibility towards executing ENS practice.

The present condition of the Malaysia's journey towards green economy is additionally appeared by the dimension of awareness

of the program among the companies working in Malaysia. About 98% of the respondents are completely mindful about GES practice. Moreover, most of the respondents characterizes the term green economy as energy conservation/renewable sources of energy, while 35% of them reacted that the green economy is about the economy that lessens its environmental impacts and 26% of the companies characterize it as an economy dependent on sustainable exercises.

Regardless, the examination likewise exhibits the exact investigation on the present condition of green economy in Malaysia by relapsing ENS on the highlighted pointers. The result is exhibited in Table 2 and Figure 5. The F-statistic demonstrates that the joint importance of the variables in the model is statistically huge at the 1% level of significance. This is appeared in the lower part of the table to be 23.6 with a likelihood value (P = 0.000). This demonstrates the aggregate adequacy of the model. Besides, the different markers utilized in the relapse clarify about 78% of the variety in the ENS in estimating the present condition of the Malaysia's adventure towards green economy practice.

The results in the table uncover that expansion in the level of *GEA* will prompt increment in the level of ENS, in this manner improving the present condition of green economy in Malaysia. The coefficient is statistically critical at the 99% level of certainty. In addition, the table additionally shows that an expansion in the level of GEP of the working companies will likewise lead improvement in the level of ENS. It is demonstrated that an expansion in the GEP by the companies builds its sustainability in the economy. The coefficient is statistically huge at the 1% level of significance. Consequently, the more significant the company's apparent green economy practices the higher will be its level of improvement in Malaysia.

The results in Table 2 further uncover that the significance of accreditation demonstrating increment in the level of commitment towards executing environmentally sustainable practice prompts improvement in the level of ENS practice in Malaysia. The coefficient is found statistically huge at the 1% level of significance. Likewise, a short run increment in the TRO desires for the green economy-oriented business in the sample prompts more noteworthy improvement in the province of Malaysia's green economy practice. The statistics demonstrate that the coefficient is statistically noteworthy at the 5% level of significance.

The variable that measures the ENE, which contains energy use, reusing and re-utilization of its materials, environmentally cordial technologies, particular waste, inward preparing on ENE and buy and utilization of materials with less impact is additionally decidedly identified with ENS practice. Be that as it may, the coefficient isn't statistically critical at any regular levels of significance. This may be brought about by the developing nation's unnecessary energy utilization, least reusing of materials and utilization of material with high environmental impact, particularly at the season of the examination when the act of green economy is as yet not completely grasped by the companies because of their ancient operation process.

In any case, *SDAs*, for example, simple access to bank loans, incentives, less organization and market regulations and control is found contrarily identified with the present province of Malaysia's journey towards a green economy. This may be so in developing and rising economies where bank loans are not promptly accessible, high level of organization and insufficient market regulation and control to successfully advance indigenous firms, particularly the small and medium scale businesses which are stood up to with deficient capital and weak competitive capacity. This is correspondingly contended in Brau and Woller (2004), Gregori et al. (2014), among others. Wilson et al. (2011) and Fairman and Yapp (2005) for bureaucratic bottleneck.

The consistency of the results is analysed dependent on the indicative checks detailed in the lower some portion of Table 2. These incorporate test for multicollinearity, heteroscedasticity, variable omission, model specification and normality of residuals. The examination checks for the likelihood of multicollinearity among the independent variables utilizing connection coefficients. Besides, in Table 2 extra test dependent on change expansion factor variance inflation factor (VIF) is likewise detailed in Table 3. In accordance with the connection limit, the VIF additionally demonstrates absence of serious multicollinearity among the independent variables (Figure 6).

Table 2: Ordinary least squares regression outcome with Environmental sustainability as dependent variable

Variables	Coefficients	Standardized coefficients	Standard errors	t values	P values
CONS	1.074	-	0.332	3.24	0.001
GEA	0.848	0.570	0.149	5.69	0.000
GEP	0.190	0.314	0.056	3.39	0.001
CRT	0.191	0.499	0.034	5.57	0.000
ENE	0.034	0.059	0.049	0.69	0.247
SDA	−0.032	−0.063	0.052	−0.62	0.271
TRO	0.093	0.241	0.040	2.33	0.013
Diagnostics					
R2	78%	Skewness	13.61 (0.018)		
F-statistics	23.61 (0.000)	Kurtosis	2.60 (0.107)		
VIF	1.66	Interquartile range	1.36		
B-P Cook-Weisberg (heteroscedasticity)	2.99 (0.084)	Model specification	−0.30 (0.765)		
Cameron and Trivedi IM-test	25.53 (0.102)	RAMSEY omitted variable test	0.22 (0.802)		

The values in bracket under the diagnostics tests speak to the likelihood values that compares to their individual statistics. CONS: Constant, *GEA*: Green economy awareness, GEP: Green economy priority, CRT: Certification, TRO: Turnover, *SDA*: Sustainable development actions, B-P: Breusch-Pagan test for heteroscedasticity, VIF: Variance inflation factor, OLS: Ordinary least squares

Figure 5: Ordinary least squares regression outcome with Environmental sustainability as dependent variable

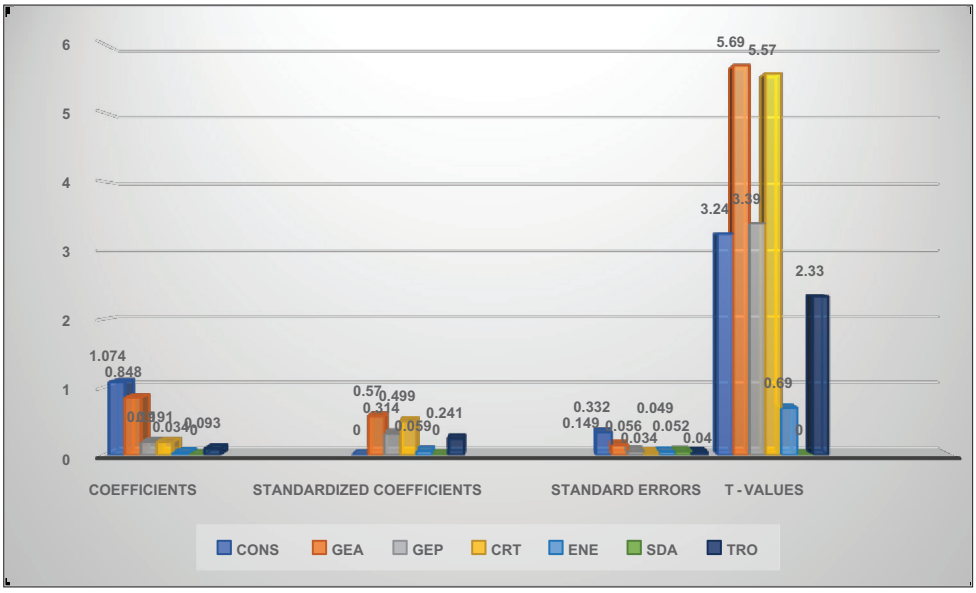
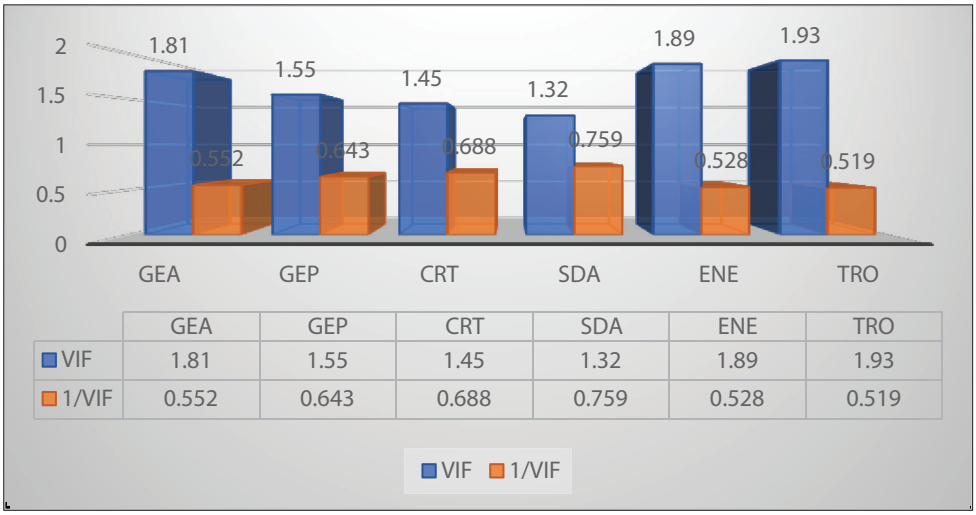


Figure 6: Multicollinearity analysis



	GEA	GEP	CRT	SDA	ENE	TRO
VIF	1.81	1.55	1.45	1.32	1.89	1.93
1/VIF	0.552	0.643	0.688	0.759	0.528	0.519

Table 3: Multicollinearity analysis

Variables	VIF	1/VIF
GEA	1.81	0.552
GEP	1.55	0.643
CRT	1.45	0.688
SDA	1.32	0.759
ENE	1.89	0.528
TRO	1.93	0.519

Mansfield and Helms (1982), the mean for the VIF is 1.66. VIF: Variance inflation factor, *GEA*: Green economy awareness, GEP: Green economy priority, CRT: Green economy certification, *SDA*: Sustainable development actions, ENE: Environmental efficiency, TRO: Turnover

The supposition of homoscedasticity is inspected dependent on Breusch and Pagan (1979) and Cameron and Trivedi (2005) disintegration of the information lattice test. Both of the results uncover that the residuals are homoscedastic in any event at the 10% level of significance on account of Breusch–Pagan, Cook-Weisberg test. In this manner, there exists no issue of heteroscedasticity in the model. In addition, the normality of residuals is likewise inspected utilizing three unique choices, skewness, kurtosis and interquartile extend, which expected asymmetry of the distribution of residuals. The tests neglect to dismiss the invalid theories of normal distribution of the residuals and the interquartile ranges for trial of normality. All the test statistics demonstrate that the residuals are roughly normally distributed, aside from the skewness which dismiss the invalid theory of normally distributed residuals. By and by, the two different trial of the normality of the data distribution are adequate proof that the residuals are normally distributed.

The test for model specification neglects to dismiss the null hypothesis that the model is accurately determined. This is uncovered by the non-significance of the _hat square statistic. This demonstrates the model is accurately determined. In addition, the investigation conducts omitted variable inclination test. The result shows that there exists no overlooked variable predisposition. In this manner, it very well may be certainly presumed that the results introduced in Table 2 are unprejudiced, efficient and reliable in clarifying the variations in ENE practice which is gone for

estimating the present condition of the Malaysia's journey towards a green economy.

5. CONCLUSION

The discovering demonstrates that a greater proportion of the sampled companies invest to improve energy use since they have confidence in it while different companies just invest to improve energy use since they are required to do it by the law. The companies are especially concerned about the PIE when they understand new products and services. The investigation surveys the level of ENE. This is additionally a pointer to the fruitful ENE in Malaysia dependent on the analysed reactions of the different high technology-based firms working in Kedah Darul Aman.

Besides, *GEA* and knowledge lead to improvement in environmental sustainability. This finding isn't astonishing given the reactions of the high technology-oriented firm about their knowledge on the conceptualization of environmental sustainability. Thusly, the view of the firms about green economy can consequently prompt improvement in the environmental sustainability. All the more in this way, investment in sustainable development through increment moral commitment towards sustainable development, investment to improve the companies' picture and to address the issues of the customers, investment in innovation and cost control just as in market openings increment the level of environmental sustainability. So also, an expansion in the green economy task sustainability which involves general counselling services to the customers, maintenance services, training and customer awareness and system with other green oriented firms likewise lead to improvement in the level of environmental sustainability.

At present, the administration of Malaysia neglects to control and authorize because of the absence of an authoritative system explicitly for green innovation or green growth. Hence, unfit to apply the carrot and stick standard and achieve industries/individuals at all dimensions. These issues should be routed to guarantee fruitful selection later on.

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