

Determinants of Corporate Sponsorship: Evidence From Consumer Product and Services Sector

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Abstract: The role of corporate sponsorship as part of the corporate philanthropy of a business has been promoted to ensure the awareness of its products or services. In order to get insights on their motivation, this study investigates the determinants of the corporate sponsorships, specifically the companies' financial characteristics and marketing intensity in Malaysian consumer products and services industry. Using annual reports, this study examined five largest listed companies in consumer products and services industry from the years 2000 - 2018, which consisted of 95 firm-year observations. Panel data regression analysis was carried out using the panel regression fixed effects model to analyse the effect of companies' financial characteristics and marketing intensity on corporate sponsorship. Financial characteristics were represented by debt ratio, return on assets, and return on equity while marketing intensity was represented by marketing expenses to total sales. The findings showed insignificant relationships between all variables and corporate sponsorship. The results may suggest that financial characteristics and marketing intensity are not the most important determinants of corporate involvement in sponsorship activities. This research would provide insights for management that, corporate sponsorships are done to promote their products and services and not necessarily have influenced by their financial and marketing agenda.

Keywords: Debt, Return on Asset, Return on Equity, Marketing, Sponsorship.

INTRODUCTION

Corporate philanthropy has been growing and gaining visibility across the world. This led to increased interest by philanthropic institutions in supporting global development agendas, including Sustainable Development Goals (SDG) through provision of financial and non-financial resources. The SDGs are the best strategy for people and the planet to create a better world by 2030. They call for companies to take action through invention, reporting and financing on issues such as humanitarian conflict, environmental concerns, educational opportunities, hunger eradication, health concerns and poverty eradication. This is expected to influence sponsorship through corporate philanthropy.

Corporate philanthropy is the act of an organisation or business promoting the welfare of others, often through financial or volunteer support for charitable causes (Chittoor, Kale, & Puranam, 2015). Corporate philanthropy helps communities through corporate giving programs which essentially lead to free money or non-profit activities. Non-profit activities by companies are done through various methods of support, such as matching gifts, volunteer grants, employee grant stipends, community grants, volunteer support initiatives, and corporate sponsorships. (Md Hashim & Md Yusof,

2016) showed Malaysian companies' involvement in various types of philanthropic activities including fund-raising efforts, disaster relief donations, the establishment of a company foundation as well as sponsorships to education and community.

Corporate sponsorship has become a vital part of funding for a wide range of sporting, cultural, artistic, health and medical, social events, education and community's welfare (Gardberg, Zyglidopoulos, Symeou, & Schepers, 2019; Md Hashim & Md Yusof, 2016). The increasing trend of corporate sponsorship can be seen from the global sponsorship statistics that show an increased from an estimated of USD 37.9 billion in 2007 to USD 65.8 billion in 2018 (Statesman, 2022). These increasing trends show that corporate sponsorship is well accepted globally. Essentially, companies use corporate sponsorship as part of their corporate strategy and to gain visibility for their product or company.

However, the most important thing is to find a means to motivate companies to participate in philanthropic activities. Philanthropy on the part of companies is widely viewed as a strategic technique that can be used to meet the expectations of customers, suppliers, and community members expressed by external stakeholders. From the sponsorship by companies, it can build a good reputation towards communities (Lee, 2021). It can also help the reputation of the corporate brand to be known by all customers. When companies give to certain areas of social needs, by channelling their sponsorship to service non-profits, the impact are higher demand by

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customers towards companies' product and services (Elfenbein & McManus, 2010) increasing loyalty from the workers (Burbano, 2016) tolerant assessment by investors and regulators (Mackey, Mackey, & Barney, 2007) perception management and reputation (McDonnell & King, 2013) and positive return on investment (Kwon & Cornwell, 2021).

Corporate sponsorship allows the company to meet stakeholder demand by providing funds for issues that are important to those stakeholders. However, little attention has been paid to sponsorship in the consumer products and services industry in Malaysia. Therefore, this study will examine the determinants of corporate sponsorship from the perspective of financial characteristics and marketing intensity.

The factors to be studied for a positive sponsorship relationship are the financial characteristics, i.e., the debt ratio, return on investment, and return on equity of the company's investment. Financial stability is assumed to promote community sponsorship. In addition, the company's marketing intensity is important because sponsorship is likely act as an advertising activity. This is because the most commonly reported method of evaluating the effectiveness of sponsorship is through exposure of sponsorship brands sponsored by media coverage of the event (Cortez, 1992). This look at how the company markets its sponsorship activities through social media to become known in communities. This can have a great impact on the relationship with consumers so that they can support and buy their products and services. All these factors are very important and can help an organization to perform well in Malaysia.

Thus, the objective of this study is to examine the determinants of corporate sponsorship of the top five Malaysian consumer products and services industry (based on market capitalization). This study intends to make contributions to both scholars and practitioners by examining the determinants of corporate sponsorship from the internal factors. The next section presents the literature review and hypotheses development. This is followed by a section of research method and design. Then, the next section presents the results and discussion. The last section presents the conclusion.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Stakeholder Theory

Stakeholder theory is a philosophy of organisational management and business ethics that considers the many groups of people whose lives are affected by businesses. These groups include local communities, consumers, society, and suppliers, among others (Freeman, 1984). This idea is fundamental to the functioning of all organisations because it allows companies to improve the efficiency of their operations. This can ensure that all business activities and work tasks are carried out effectively and efficiently throughout the organisation. In this way, companies can improve their financial performance and develop more effective marketing strategies for their products and services. When an organisation is strong and stable, the team leadership and management of the organisation can better decide whether or not to make a sponsored contribution to those in need.

Corporate Sponsorship

Sponsoring is the planning, organization, execution, and measurement of activities that include a company's provision of cash materials or services for individuals, teams, or organizations that are related to sports, culture, environmental services, social services, or the media in order to support and patronize such individuals, teams or organizations, and to fulfill own communication goals (Bruhn, 2004). One definition of corporate sponsorship is that companies regularly provide financial support to non-profit organisations to achieve their goals. The organisation then acknowledges that the company has funded their activities, programmes, and/or major events (Lee, 2021). Another definition is that, as compared to corporate donations, corporate sponsorship comprises of money and in-kind gifts in response for recognition and appreciation with a certain cause or event (Ali, Abidin, Haron, & Ghani, 2017). The key difference is that sponsorships always include some kind of material benefit for the sponsor in terms of marketing communication rights and recognition, whereas corporate donations are altruistic activities with the primary goal of knowing that good is being done (Ali et al., 2017). From this it becomes clear that sponsorships involving using the marketing approach. Sponsorships are now emerged from short-term philanthropic activities to a long-term strategic partner (Fahy, Farrelly, & Quester, 2004).

Studies about corporate sponsorships are mostly being conducted in the field of marketing, finance, and business, to name a few. Earlier studies on corporate sponsorship look into the awareness of sponsorship (Miyazaki & Morgan, 2001; Walraven, Bijmolt, & Koning, 2014) over time. It is found that the longer term of sponsorships will create good long-term relationships as the level of sponsorship awareness will increase. Some studies focused on the effect of corporate sponsorship practices. These studies identified the effect of corporate sponsorship by the companies may increase reputation (Chebli & Gharbi, 2014; Lee, 2021). However, as far as we are concerned, not many studies are done to look at the determinants of corporate sponsorship. Past studies mainly used questionnaires as instruments to collect data, however, this study will use annual reports to gain insight on the corporate sponsorships done by companies. This study focuses on the internal factor namely, financial characteristics and marketing intensity and their effects on corporate sponsorship practices.

Debt Ratio and Corporate Sponsorship

The transition to higher rates of savings and lower debt loads will result in increased commitment to societal and environmental goals (Aigner, 2016). If a company has a low debt-to-equity ratio, it may be able to satisfy the implicit claims of various external constituencies, including the government and local communities through various donations (Adams & Hardwick, 1998) or by providing sponsorship. Many studies had enabled to provide evidence that these relationships are significant. For instance, there is a significant relationship between these variables (Adams & Hardwick, 1998). Accordingly, lowly leveraged companies tend to make larger donations than highly leveraged companies (Adams & Hardwick, 1998) as the low-leverage companies have less

risk that would allow them to respond quickly to others (Kubick, Lynch, Mayberry, & Omer, 2015; Hassan et al., 2022; ISHII, 2022; Blenman et al., 2022). Accordingly, debt has a negative relation with CSR because firms with a high debt ratio are incapable of implementing the activities (Mao, 2019) such as corporate sponsorship. The capability will depend on the number of resources owned by the company (Mao, 2019). The debt ratio of an enterprise could reflect its financial limitations for sponsorship to support the continued support of debt owners (Adams & Hardwick, 1998). The company's reputation reflected through such as its position (the debt ratio) could also influence the CSR activities conducted (Brammer & Millington, 2004). The same could be predicted in the context of corporate sponsorship.

Despite this, some studies provide a different view in regard to this relationship. Based on certain characteristics, a company with a financial constraint such as a high debt ratio could be under pressure to make aggressive fiscal avoidance by providing CSR-like corporate philanthropy to compensate for its matured debt due to tax-deductible interest payments (Hoi, Wu, & Zhang, 2013). Market uncertainties will encourage the company to hold more cash and reduce the debt ratios (Elnahas, Ismail, El-Khatib, & Hassan, 2019) and subsequently, this should be translated into lower sponsored activities. Despite the uncertainties, certain characteristics such as compliance with Islamic Law may still encourage the companies to contribute to others (Elnahas et al., 2019). Based on the previous literature review that has been conducted, it is found that there is a mixed result between debt ratio and sponsorship. Therefore, a hypothesis is developed as follows:

H_1 = There is a significant relationship between debt ratio and corporate sponsorship.

Return on Asset and Corporate Sponsorship

Previous studies such as Wang and Qian (2011) and Hou, Meng, Zhang, and Chan (2019) had found that financial performance measured as return on assets (ROA) has a positive significant impact on corporate philanthropy. ROA could reflect company's potential to generate revenue through the exploitation of its assets (Kang, Huh, & Lim, 2019) and provide the indication of the company available resources. It was found that, company in a more developed region with more resources (such as revenues and total assets) had undertaken more social responsibility projects rather than those who with less resources. This often done in to build a good relationship with stakeholders and to obtain their support. This also used to achieve business political objectives, such as fostering credibility and gaining public support (Dai, Pan, & Feng, 2014; Du, 2015; Hornstein & Zhao, 2018; Qin, Harrison, & Chen, 2019; Wang & Qian, 2011; Handoyo et al., 2022; Handoyo & Kusumaningrum, 2022). Recently, Kartini, Maiyarni, and Tiswiyanti (2019) had conducted a study on ROA and CSR disclosure and found that there are significant relationship between the variables. Not only that, ROA are often associated with the profitability of the company. Profitability and CSR have a positive relationship, according to Buchholz and Alexander (1978). However, some businesses practise CSR regardless of their financial performance (Zhou, Pan, & Wang, 2015).

Corporate sponsorship in this study can be seen at the same light in the context of social responsibility projects conducted in previous studies. Based on the previous literature review that has been conducted, the following hypothesis is developed:

H_2 = There is a significant relationship between return on asset and corporate sponsorship.

Return on Equity and Corporate Sponsorship

Heikal, Khaddafi, and Ummah (2014) found that ROE is significant toward corporate growth. ROE could reflect company's potential to generate revenue in relation to its equity or shareholders value. Corporate giving can be seen as a strategic mechanism and how much the company should invest that based in the explicit values of the shareholders (Godfrey, 2005). The higher the shareholders' value the higher possibility that company will go forward for corporate sponsorship. Corporate sponsorship could act as a marketing tool, indirect cost saving mechanism and community-oriented investment (Liang & Renneboog, 2017). High ROE ratio would increase the profit growth that contribute towards the sustainability of company performance (Lassala, Orero-Blat, & Ribeiro-Navarrete, 2021; Pham, Do, Doan, Nguyen, & Pham, 2021; Tien, Anh, & Ngoc, 2020; Britel & Cherkaoui, 2022; Mulyaningsih et al., 2022) and reflect the clear accountability to shareholders for all the investment (Godfrey, 2005) either directly related to the operations of the company or indirectly related such as through corporate giving. This study propose that the higher the ROE there could be more resources available that would allow for the company to discharge the responsibility of stakeholders to others by pursuing for corporate sponsorship. Therefore, a hypothesis is developed as follows:

H_3 = There is a significant relationship between return on equity and corporate sponsorship.

Marketing Intensity and Corporate Sponsorship

Building up a loyal consumer base may be accomplished via the combined efforts of marketing and sponsorship. Some studies such as Zhang, Zhu, Yue, and Zhu (2010) found that there is a substantial relationship between advertising and charitable giving. Advertisement as part of marketing initiative able to influences the behavior towards the charitable giving or sponsorship by increasing visibility and accessibility (Zhang et al., 2010). Company can develop prestige, enhance brand recognition, and loyalty as a means of promoting itself, as well as in attracting and retaining a staff through providing corporate sponsorship to others (Sánchez, 2000). Cornwell (2019) propose that sponsorship have positive linked with marketing as the sponsorship has function as advertising for decades.

Marketing intensity has a substantial association with sponsorship of catastrophic occurrences (Neville, Bell, & Mengüç, 2005). Companies that already have substantial marketing expenditures will continue to have a greater likelihood of giving and sponsoring higher sums. Brammer and Millington (2005) state that sponsorship has a beneficial link with marketing since it discovers it as a way of advertising that increases the image and reputation of the company.

Companies with a higher need for advertising (higher spending on advertising) should also engage more in sponsorship (Brammer & Millington, 2004). This underlying marketing mechanism can potentially increase consumer trust by allowing consumers to process more information, repeat hiring decisions, and provide more opportunities for brand-relevant cognitive development (Berger & Mitchell, 1989).

This societal marketing program can build brand awareness and create a brand community sense (Singhal, Rajput, & Jha, 2017). The programs enable consumers to develop a positive image of brand users, for example, in terms of being kind, generous, and doing good things, to which they can also aspire (Singhal et al., 2017) and provide evidence through corporate sponsorship. Therefore, it is hypothesised that:

H_4 : There is a significant relationship between marketing intensity and corporate sponsorship.

RESEARCH METHOD AND DESIGN

The sample of this study comprises of the public listed companies in consumer products and services industry for the years between 2000 to 2018. Both financial and corporate data are obtained from the annual reports of top five companies in the said industry, giving a total of 95 firm-year observations. Panel dataset is applied in this study as it can provide more information on the datasets (Law, 2018). The panel dataset is useful to analyse the firm level or company datasets. Usually, the firm level datasets have many firms, but short sample periods, and there is a possibility to have firm specific effect or time specific effect.

However, in this study, there are several companies being analysed, but with longer sample periods. The panel data can be used to estimate the accurate inference by controlling the firm specific effect and time effect by using the correct standard errors estimation. Therefore, the findings of the result will be robust. The panel data are analysed using E-Views. The data was converted into logarithm to standardize the entire figures. Table 1 below shows the operationalization of each variable.

Table 1. Operationalization of Variables.

Variables	Acronym	Measurement	Source
Corporate Sponsorship	SPO	0: No 1: Yes	Annual report from the top 5 companies in consumer product and services sector that are listed on Bursa Malaysia from the years 2000-2018
Debt Ratio	LDRA	Total liabilities / total assets	
Return on Asset	LROA	Total assets / net profit	
Return on Equity	LROE	Total equity / net profit	
Marketing Intensity	LMAI	Marketing expenses / total sales	

After data has been collected, Unit Root Test is performed to check the persistence or the stationarity of the dataset. Many

economic and financial time series data exhibit trending behaviour or non-stationarity in the mean and have an infinite variance (Zivot & Wang, 2006). Thus, unit roots can cause unpredictable and bias results in time series analysis; and spurious correlations are very likely to emerge in non-stationary data. The smaller the value (negative value), the stronger the evidence for the data to be stationary (Zivot & Wang, 2006). In this study, we used Levin, Lin and Chu Test (LLC Test) to test on the data stationarity. Therefore, a hypothesis is developed as follows:

H_0 : The data series computed are not stationary (has unit root)

H_1 : The data series computed are stationary (has no unit root)

The result of stationary test will be significant when the p-value is less than 0.1. Therefore, null hypothesis will be rejected, indicating that, the data has no unit root problem.

Model Estimation

This study used multiple regression analysis to test the relationship between the dependent variable, corporate sponsorship and the independent variables. Therefore, regression model for this study is shown as follows:

$$SPO_y = \beta_0 + \beta_1 LDRA + \beta_2 LROA + \beta_3 LROE + \beta_4 LMAI + \varepsilon$$

where;

SPO	:	Corporate Sponsorship
DRA	:	Debt Ratio
ROA	:	Return on Asset
ROE	:	Return on Equity
MAI	:	Marketing Intensity
β_0	:	Constant variable
β_1	:	Coefficient for Debt Ratio
β_2	:	Coefficient for Return on Asset
β_3	:	Coefficient for Return on Equity
β_4	:	Coefficient for Marketing Intensity
ε	:	Normally distributed error term

The observation of the dependent variable (y) was represented by corporate sponsorship. Meanwhile, the independent variables were represented by DRA, ROA, ROE and MAI. The associated regression coefficients were represented by beta (β).

Before the model is developed, two tests will be conducted, i.e., Redundant Effect Likelihood Test and Hausmann Test. These tests are conducted to decide whether to employ Panel Regression Random Effects Model or Panel Regression Fixed Effect Model, which will be developed as empirical model. Therefore, a hypothesis is developed as follows:

H_0 : Panel regression fixed effect cannot be employed to the data

H_1 : Panel regression fixed effect can be employed to the data

Several diagnostic tests were also conducted to ensure that the proposed model in this study adequately describes the time series under consideration by subjecting the calibrated model to a range of statistical tests such as the Normality Test, the Autocorrelation test, and the Multicollinearity Test.

RESULTS AND DISCUSSION

Stationarity Test

Stationarity test is a property of time series which states that the value of the variable does not change with time i.e., variation in time does not serve as a factor that brings changes in the value of a variable. Based on the Levin, Lin, Chun (LLC) test showed in Table 2, all variables become significant at 1% at 1st different, both at with and without trend except for corporate sponsorship (SPO). For SPO, at 1st different without trend, the variable is still significant but at 5% significant level. Therefore, the decision is to reject H_0 indicating that the data series is stationary (has no unit root).

Table 2. Levin, Lin, Chin (LLC) Test.

Variable	Level		1 st Different	
	No Trend	Trend	No Trend	Trend
SPO	-0.10083	0.20518	-1.82715	-2.81509
	0.4598	0.5813	0.0338**	0.0024***
LDRA	-0.9899	0.03746	-7.05925	-5.80022
	0.2423	0.5149	0.0000***	0.0000***
LROA	-2.23391	-1.47278	-5.09690	-4.44285
	0.0127	0.0704	0.0000***	0.0000***
LROE	1.35187	-4.88896	-12.2807	-13.0333
	0.9118	0.0000***	0.0000***	0.0000***

LMAI	-0.24938	-3.45933	-8.43539	-6.36028
	0.4015	0.0003	0.0000***	0.0000***

Note: *** Significant at 1%, ** Significant at 5%, * Significant at 10%.

Descriptive Statistics

Table 3 shows the descriptive statistics of data for all variables which are corporate sponsorship (SPO), debt ratio (LDRA), return on asset (LROA), return on equity (LROE), and marketing intensity (LMAI) for 95 firm-year observations. The characteristics of the data can be analysed using measures of central tendency, measures of dispersion or variation, and measures of the shape of distribution.

For corporate sponsorship (SPO), the mean score is 0.80 with minimum score 0 and maximum score 1. This indicates that most firms have practiced sponsorships in their business operations. SPO score illustrates that most firms are checking their activities to include sponsorships. For debt ratio (LDRA), the mean value is 3.09 with a range between 0.03 and 5.17. For return on assets and return on equity, the mean is 2.32 and 2.88, respectively. For marketing intensity, the mean is 2.36.

With regards to the variation in the data distribution, it can be measured using standard deviation. For standard deviation, 68% of all variables' values fall within 1 standard deviation to the mean except LDRA which is 99.7% the value fall within 3 standard deviations of the mean. The measures of the shape of distribution can be described by skewness, kurtosis, and Jarque-Bera. The skewness for all variables (except for LMAI) are negative values' indicating that the data for the variables are skewed to the left. However, only LMAI is skewed to the right (positive value). Meanwhile, for kurtosis, the value of the SPO, LROA, and LROE are more than 3. This shows that the data is more concentrated around the mean. However, LDRA and LMAI the value is less than

Table 3. Descriptive Statistics.

	SPO	LDRA	LROA	LROE	LMAI
Mean	0.800000	3.094443	2.324190	2.883384	2.362493
Median	1.000000	3.202340	2.253395	2.848971	2.074429
Maximum	1.000000	5.168038	3.381335	4.626247	3.724970
Minimum	0.000000	0.029559	0.727549	0.314811	0.819780
Standard deviation	0.402122	1.423915	0.581051	0.856938	0.809433
Skewness	-1.500000	-0.704243	-0.345547	-0.130135	0.238954
Kurtosis	3.250000	2.516792	3.186021	3.138217	1.638631
Jarque-bera	35.87240	8.776910	2.027514	0.343759	8.240148
Probability	0.000000***	0.012420***	0.362853	0.842081	0.016243**
Sum	76.00000	293.9720	220.7981	273.9215	224.4369
Sum sq. Deviation	15.20000	190.5883	31.73636	69.02829	61.58704
Observations	95	95	95	95	95

Note: *** Significant 1% level, ** Significant at 5% level, * Significant at 10% level.

3. This shows that the data is widely spread around the mean. Based on Jacque-Bera, the value of LROA and LROE are insignificant. This indicates that the data has a normal distribution. Meanwhile, the value of SPO, LDRA and LMAI are significant. This indicate the data are not normally distributed.

Redundant Effects-Likelihood Ratio Test

The significant results from Redundant Effects-Likelihood Ratio Test (Table 4) for Cross-section F and Cross-section/Period F provide evidence to reject null hypothesis that Panel Regression Fixed Effect Model can be employed to the data. Table 4 shows that all values are significant at 1% and 10% except Period F. Therefore, the Panel Regression Fixed Effect Model is more appropriate than Panel Regression Random Effect Model.

Table 4. Redundant Effects-Likelihood Test.

Effects Test	Statistic	d.f.	Prob.
Cross-section F	6.717027	(4,68)	0.0001***
Cross-section Chi-square	31.633089	4	0.0000***
Period F	1.321154	(18,68)	0.2032
Period Chi-square	28.490028	18	0.0550*
Cross-section/Period F	2.193736	(22,68)	0.0073***
Cross-section/Period Chi-square	50.952312	22	0.0004***

Note: *** Significant at 1% level, ** Significant at 5% level, * Significant at 10% level

Hausman Test

Based on Table 5, the significant results from Hausman Test for Cross-section and period random provide evidence to reject null hypothesis ($p\text{-value} < 0.05$) that Panel Regression Fixed Effect Model should be employed to the data. Therefore, the suitable empirical model to be estimated in this study is Panel Regression Fixed Effect Model.

Table 5. Hausman Test.

Test Summary	Probability
Cross-section random	1.0000
Period random	1.0000
Cross-Section and period random	0.0000***

Note: *** Significant at 1% level, ** Significant at 5% level, * Significant at 10% level.

Panel Regression Fixed Effect Model

The result in Table 6 shows that, all variables have no significant relationship with SPO. However, on overall, the model can be considered as a good empirical model because the R-squared value is more than 50%. This means the variation in

sponsorship can be explained by all the changes in debt ratio, return on asset, return on equity and marketing intensity. Moreover, according to the Prob (F-statistics), the result is significant at 1% level.

Table 6. Panel Regression Fixed Effect Model.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.109778	0.597887	-0.183610	0.8549
LDRA	0.018232	0.039920	0.456714	0.6493
LROA	-0.035488	0.137347	-0.258380	0.7969
LROE	0.143264	0.107272	1.335524	0.1862
LMAI	0.221273	0.181635	1.218226	0.2273
Effects Specification				
Cross-section fixed (dummy variables)				
Period fixed (dummy variables)				
R-squared	0.569043	Mean dependent var		0.800000
Adjusted R-squared	0.404266	S.D. dependent var		0.402122
S.E. of regression	0.310373	Akaike info criterion		0.731969
Sum squared resid	6.550542	Schwarz criterion		1.457808
Log likelihood	-7.768528	Hannan-Quinn criter.		1.025262
F-statistic	3.453403	Durbin-Watson stat		1.098421
Prob(F-statistic)	0.000022***			

Note: *** Significant at 1% level, ** Significant at 5% level, * Significant at 10% level.

Effects Test	Probability
R-squared	0.569043
Prob (F-statistic)	0.000022***

Diagnostic Tests

Three tests are conducted for diagnostic checks which is Normality Test, Multicollinearity Test, and Autocorrelation Test.

(i) Normality Test

Table 7. Normality Test.

Jarque-bera	1.887322
Probability	0.389200

Note: *** Significant at 1% level, ** Significant at 5% level, * Significant at 10% level.

The Jarque-Bera value in Table 7 shows an insignificant result, indicating do not reject null hypothesis. Therefore, the empirical model is a good model as the residual is normally distributed.

(ii) Multicollinearity Test

Table 8. Multicollinearity Test.

	LDRA	LMAI	LROA	LROE
LDRA	1.000000			
LMAI	0.152218	1.000000		
LROA	0.051770	0.112154	1.000000	
LROE	0.191301	0.071162	0.852000	1.000000

Note: *** Significant at 1% level, ** Significant at 5% level, * Significant at 10% level.

Multicollinearity is a statistical phenomenon with a clear association between two or more predictor variables in a multi regression model. Multicollinearity problems exist if there is correlation coefficient higher than 0.80. Table 8 shows that there is multicollinearity problem for correlations between LROA and LROE because the correlation value is more than 0.80. Therefore, the results from the model could be bias and should cautiously interpreted.

(iii) Autocorrelation Test

Table 9. Autocorrelation Test.

Durbin-Watson stat.	1.098421
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Note: *** Significant at 1% level, ** Significant at 5% level, * Significant at 10% level.

The Durbin-Watson stat resulted on Table 9 shows that the linear regression estimated is not free from autocorrelation problem (Durbin-Watson statistics is not between 1.8-2.5). Therefore, to remove the autocorrelation problem, Autoregression Test is conducted.

Table 10. Autoregression Test.

Durbin-Watson stat.	2.003812
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Note: *** Significant at 1% level, ** Significant at 5% level, * Significant at 10% level.

Based on Table 10, the result shows that the Durbin-Watson statistic is free from autocorrelation problem (Durbin-Watson stat is between 1.8-2.5).

In summary, LDRA, LROA, LROE and LMAI have no significant relationship with SPO. However, on overall the empirical model is considered as a good model because the value of R-squared is high (52%) and F-stats is significant. Nevertheless, the result must be cautiously interpreted because the estimated model has multicollinearity problem between independent variables of LROA and LROE.

The relationships between financial characteristics and marketing intensity with corporate sponsorship in the consumer product and services industry in Malaysia are identified in this study. All independent variables has insignificant relationship with dependent variable. However, only debt ratio has been supported through the past literature that it has insignificant relationship with corporate sponsorship. While, marketing intensity, return on asset, and return on equity has

contradict result with the past literature. First, if with larger marketing intensity can increases the expenses of the company that can be huge impact towards company for not involve in corporate philanthropy program. Second, if the value of return on asset is low, the company have lower asset productivity. It means the company cannot use their asset to generate profits due to odd or disposed assets. Lastly, if the value of return on equity is the low, the company have higher leverage rather than equity. It means that shareholders have less invest amount of money through company to reduce the leverage. Therefore, all hypotheses (H₁, H₂, H₃ and H₄) are not supported.

CONCLUSION

This study has investigated the factors, namely financial characteristics and marketing intensity that influence corporate sponsorships in the consumer products and services sector in Malaysia. This study uses dummy variable in measuring the corporate sponsorships. This study is focusing on the annual reports, for a 19-years period, with a total of 95 firm-year observations. The main conclusion of this research was that there was no significant relationship between any independent variable (financial characteristics and marketing intensity) utilised in the study and corporate sponsorship. One might make the claim that the level of a corporation's financial strength or the amount of money it spends on marketing does not affect corporate sponsorship. To put it another way, a company that does make sponsorships does so not as a result of factors that are located within the company, but rather as a result of factors that are located outside of the company, including brand recognition, a positive image, a solid reputation, a competitive environment, a legal and regulatory environment, and government incentives. This study would give management with new insights that corporate sponsorships are done to promote a firm's products and services, and do not necessarily have any bearing on the company's financial or marketing goals. The implication is that company boards concerned with creating value with external stakeholders should consider the importance of making corporate sponsorship.

This research has certain limitations, and all of the findings in this study need to be analysed with caution. Despite the fact that the general empirical model is a strong model, this study has some drawbacks. To begin, the only factors that are considered to be relevant in determining corporate sponsorship in this research are financial features and the level of marketing intensity. It is advised that further research be conducted into the ways in which leadership qualities possessed by senior management positions, such as the chief executive officer and board of directors, may have an effect on corporate philanthropy activities among companies. This is due to the fact that the top management is often responsible for arranging the many operations of the organisation into departments that are able to fulfil the various business processes. This may ensure that all business activities and work tasks are completed in an effective and efficient way across the whole company. Therefore, this may assist top management make a better judgement when determining whether or not to engage in activities related to corporate philanthropy. Second, in order to ensure the reliability of the results, it is strongly suggested that the time frame of the

research be increased to at least 30 years. In addition, this research has the potential to be expanded even further by doing an analysis of the top 10 companies of various industries in Malaysia. According to Bursa Malaysia, the country is home to a diverse range of industries, including those related to construction, utilities, technology, telecommunications, transportation, and many more.

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