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Assessing the Coronavirus Impact on the Asean Countries' Top 10 Most Valuable Brands*

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Abstract

The goal of this study is to see if the Coronavirus affects the Top 10 most valuable brands in various ASEAN countries (Malaysia, Singapore, Indonesia, and Vietnam) and industry types differently. The data for this study was collected using a secondary data method (content analysis). Based on their annual reports from 2019 to 2021, the researchers examined the brand equity of the Top 10 most valued brands in each of the four ASEAN countries. IBM Statistical Package for Social Science (SPSS) Statistics for Windows was used to examine the data. Frequency, an independent *T*-test, and one-way analysis of variance tests were also applied to the data. The findings revealed considerable disparities between the Top 10 most valued ASEAN country brands in 2019–2020 and 2019–2021 due to the impact of the Coronavirus. Due to the influence of the Coronavirus, the data revealed no significant differences between industry categories. Future studies could look into the disparities between the most valuable brands and the influence of the Coronavirus over a longer period of time and include a larger number of firms and countries. Brand managers in ASEAN countries' Top 10 most valuable companies must carefully manage their brands to preserve brand life and reduce the impact of future global pandemics.

Keywords: Most Valuable Brands, Brand Equity, Coronavirus Impact, ASEAN Countries

JEL Classification Code: M30, M31, M39

1. Introduction

Many marketers have realized that a strong brand is crucial for firms to achieve product or service differentiation and competitive advantage. As the world continues to grapple with Coronavirus, many companies have struggled to maintain their brand equity, and only strong brands have

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achieved this (Brown, 2020). Coronavirus has disrupted businesses operations, sales activity, and supply chains globally and shed light on the future readiness of brands to drive growth in the "new normal" (Meyer et al., 2021). Even though not all industries were affected by the Coronavirus, most business sectors such as apparel/fashions, airlines, insurance, and tourism were hit hard by this global health crisis (Brown, 2020; Ciquera, 2020). For instance, Solanki and Oberoi (2021) report an overall reduction of 57% to 60% in air passenger traffic (both international and domestic) in India, representing a reduction of US\$104.5 billion airport revenue in 2020 as compared to 2019. Ciquera (2020) reported that the loss of value due to Coronavirus was estimated to be as much as US\$100 trillion globally.

In ASEAN countries like Malaysia, the total value of the Top 100 most valuable Malaysia brands in 2020 was affected by Coronavirus with a slight decrease to US\$55.8 billion, down about 0.5% from US\$56.1 billion in 2019. Additionally, the Top 10 most valuable brands were fighting to stay within their respective spots in 2020. Six of them declined in brand equity values from 5.5% to 31.1%, mainly resulting from Coronavirus (Malaysia 100, 2020). Similarly, Top 100 Singapore brands were also affected by Coronavirus and reported that they lost brand equity of 8.2% from US\$53.3%

(2019) to US\$48.9 in 2020. Moreover, six companies from the Top 10 most valuable Singapore brands decreased their brand equity from 2.8% to 62.5% (Singapore 100, 2020). On another note, the Top 500 China brands remained stable and were still worth US\$1.94 trillion in 2021. The China Top 500 brands were able to sustain their brand equity because they successfully responded to the health emergency and strategically shifted to digital marketing platforms (China 500, 2021).

Due to an inconclusive study of the Coronavirus impact on brand equity, the current study will fill the gap related to the ASEAN countries. Thus, the research question in the present study is "are there differences in experiences between ASEAN countries, brand sectors, and types of industries in the Top 10 most valuable brands due to the impact of Coronavirus?" The objective of this study is to differentiate the Coronavirus impact (massive impact-more than 20% brand equity loss, moderate impact-11% to 20% barnd equity loss, limited impact-0% to 10% brand equity loss, and no impact-no brand equity loss) on brand equity among the Top 100 most valuable brands in ASEAN countries from 2019 to 2021 and the types of industry. In relation to this, 100 top brands in ASEAN countries such as Malaysia, Singapore, Indonesia, and Vietnam for 2019 to 2021 were assessed using annual reports produced by Brand Finance.

The current study provides insights and contributes to examining the Top 10 most valuable ASEAN countries' brands, brands sectors, and types of the industry hit by Coronavirus. This study also exposes how fragile some familiar brands are due to the unexpected and unprecedented situation caused by Coronavirus. To date, the study of Coronavirus's effects on brand equity (financial-based) is minimal, particularly in the ASEAN setting (Hoekstra & Leeflang, 2020; Huang et al., 2021). In fact, a study of financial-based brand equity is unfamiliar because of several inconsistent indicators to measure brand value (Isberg & Pitta, 2013; Tasci, 2020). According to Dumouchel et al. (2020), the Coronavirus pandemic has raised more questions than answers. Thus, this study may provide a novel contribution to the literature and the companies to realign their marketing strategies to deal with a health emergency. Also, future entrepreneurs might get some idea of which types of industry or business sectors have a negative or low impact on the global pandemic. The remainder of this paper is organized as follows: the introductory remarks are followed by a section setting out the literature review. Section 3 discusses the methods employed in this study. Section 4 presents the results and discussions, and finally, Section 5 provides a conclusion.

2. Literature Review and Hypotheses

In this section, the researchers reviewed literature that critiqued and summarized the body of knowledge on the impact of the Coronavirus, brand equity, and the relationship between ASEAN countries and types of industries affected by Coronavirus.

2.1. Coronavirus

At the end of 2019, a new disease called Coronavirus spread worldwide and was declared a pandemic by the World Health Organization (WHO) on March 11, 2020. The government announced many measures to control the spread of the deadly Coronavirus, including travel restrictions and bans on commodities shipments. Generally speaking, Coronavirus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes (WHO, 2022a). As of February 2, 2022, over 376 million people have been infected, and it has caused more than 5.6 million fatalities, while more than 9.9 billion vaccine doses have been administered worldwide (WHO, 2022b). Even though this virus originated in Wuhan, China, the impact of Coronavirus was not confined to China, and many neighboring countries have been caught up in this crisis. ASEAN countries like Singapore, Malaysia, and Vietnam are fully exposed to this health emergency because these countries are highly reliant on China for such things as trade, tourism, and raw materials (The Economist Intelligence Unit, 2020). A similar study by Chong et al. (2021) also revealed that the obvious impact of Coronavirus on ASEAN countries is a continuing economic slowdown due to lower gross domestic production and the slow recovery of trade volume. Morgan and Long (2021) in their study, mentioned the negative impacts of Coronavirus on households in ASEAN countries; these include reduced working hours, an inability to travel to work, loss of sales and income for household businesses, reduced access to schooling, which all contribute to slow growth of human capital development.

2.2. Coronavirus Impact on Brand Equity

Because of this epidemic, global brand value loss has been estimated at up to US\$100 Trillion (Ciquera, 2020), and companies have to reevaluate their current marketing strategies to ensure that their brand equity is not hit hard by the Coronavirus (Balis, 2020). For instance, Campaign (2020) conducted a survey of 144 brand marketers from 11 industries across 13 countries in Asia and found that most businesses (56%) have slowed or come to a screeching halt. They have to change their marketing strategies to drive up sales as their top key-performance indicator over the short-term and at the same time drive the brand equity. In addition, the companies have to accelerate their digital transformation to stay connected with their customers (Campaign, 2020). This is one of the reasons why the crisis has had a less dramatic impact on the brand value of some strong brands in

sectors such as beer, retail, food, oil and gas, and commercial services (Salinas, 2020; Campbell, 2002).

The disease has also changed consumers' preferences globally, which is another factor that contributed to brand value loss in some industries. A recent report by Accenture (2020) reveals that most people are increasing their usage of personal hygiene, canned food, and cleaning products and reducing their fashion consumption by 30%, followed by home décor (22%) and beauty products by 17%. A similar study conducted by Hoekstra and Leeflang (2020) shows that consumers are buying more retail tissues and hygiene products, fresh food, and packaged food. In addition, consumers spend more on infotainment like Netflix, games, digital products, gardening material, and do-it-yourself products. As a result, many companies reacted to the changing needs by aligning their marketing strategies to ensure their brand was still competitive during the health crisis. One of the business strategies implemented by several local companies such as Savannah, manufactured different local beers using local crops from various parts of Africa. With this strategy, the company maintained its brand performance (Dumouchel et al., 2020). Huang et al. (2021) recommend that brands should stay connected with their consumers, and considerable effort must be made to retain loyal customers rather than trying to acquire new customers during the global crisis. By doing this, the companies can hold their brand strength and, at the same time, maintain their brand equity.

During crises, many companies can use two types of analysis to reflect their brand equity (Salinas, 2020). These analyses are critical because they will drive the company to design strategies to manage crises like economic recessions or health emergencies. The author added that the company should measure the relationship between brand investment and brand strength during crises and the link between brand strength and business performance. In the current study, the researchers aim to study the difference between the brand strength of the Top 10 most valuable brands in ASEAN countries and business performance (brand equity) from 2019 to 2021. By comparing the Coronavirus impact, the brand managers can identify how serious the outbreak impacts their brands. Thus, it will facilitate them to make the necessary changes to their current marketing strategy/ies to ensure brand longevity and increase brand equity.

2.3. Brand Equity

Brand equity is one of the most valuable elements in a company; it enhances the image and is vital to company success (Wang & Sengupta, 2016; Feng et al., 2017). Aaker (1996) defines brand equity as assets associated with a brand name that increases the value of the product or service of an organization. Importantly, since its appearance in the 1980s, brand equity has been one of the main talking points

in marketing research (Zahari et al., 2020). Generally, brand equity is usually conceptualized from three different perspectives: the consumer, the company, and finance (Baalbaki & Guzmán, 2016). Moreover, most scholars use a technique based on consumer mindsets by testing dimensions of brand equity such as awareness, associations, or attitudes, as developed by Keller (1993) and/or measurement of brand equity (Keller & Lehmann, 2003; Fischer & Himme, 2016). This current study adopts financial-based brand equity whereby the companies' brand values are taken from The Brand Finance Group because this company is considered the expert in the valuation of the world brands (Ourusoff, 1993). Wang (2010) defines financial-based brand equity as the additional economic value a brand offers to a company regarding its relative potential to generate future earnings or cash flows. The study of financial-based brand equity is still crucial, even though it was developed in the 80s, because financial-based brand equity is considered an outcome of customer-based brand equity (Ailawadi et al., 2003; Pakseresht, 2010).

2.4. Hypotheses

Based on prior Coronavirus and brand equity literature, a past report from Brand Finance (2021a) revealed that the long-standing leader in brand value, the US, has recorded a 14% brand value loss, equal to US\$23.738 trillion. By contrast, the second leading brand value, China, only lost 4% (US\$18.764 trillion) in 2020. Of the top 10 most valuable nation brands, Germany, India, and South Korea were hard-hit by Coronavirus. For instance, Germany lost 21.5% (US\$3.813 trillion) brand value, followed by India with 20.8% (US\$2.028 trillion), while South Korea lost 20.6% or US\$1.695 trillion (Brand Finance, 2021a). Another statistic from Brand Finance (2021b) revealed that the top 50 Russian brands lost RUB743.5 billion of brand value due to the pandemic. A recent report from Brand Finance (Global 500, 2022) reveals that the technology sector is the most valuable (US\$1.3 trillion) in the Brand Finance Global 500 ranking, and other sectors such as retail, banking, media, and telecoms were also gaining more brand value in 2022. However, some sectors like tourism and airlines are showing signs of recovery. The outbreak's impact is going to be a long one if brands fail to adapt and utilize technology.

For example, in ASEAN countries, the Top 10 most valuable Indonesia brands, dominated by a few sectors such as banks and tobacco, did not suffer as much from Coronavirus. Only two of the Top 10 most valuable Indonesian brands bear the scars of the impact of the Coronavirus, resulting in loss of brand value of between 3.65% to 10.18% (Indonesia 100, 2020). In 2021, 90% of the Top 10 most valuable Indonesian brands were hit by Coronavirus (Indonesia 100, 2021). Conversely, the total value of Vietnam's most

valuable brands went up 28% in 2020 from US\$18.8 billion to US\$26.1 billion. Interestingly, the Coronavirus did not have a negative impact on most of the Top 10 most valuable Vietnam brands (Vietnam 50, 2020). Moreover, in 2021, only four of the Top 10 Vietnam's most valuable brands suffered from the outbreak's impact (Vietnam 50, 2021). The findings show that brand value loss is different for each country.

On another note, the brand equity loss by industry type and brand sectors is inconsistent. For instance, Accenture (2020) has reported that many people were buying less fashion, home décor, and beauty products during Coronavirus. This led to brand value loss for these sectors. Previous research by Hoekstra and Leeflang (2020) states that infotainment (e.g., Netflix), games, digital products, gardening material, and do-it-yourself products were among the top-selling products during the pandemic. Other studies by Brown (2020) and Ciquera (2020) mention that the global health crisis hardly affected business sectors such as apparel/fashions, airlines, cruises, insurance, tourism. Salinas (2021) and Nguyen (2022) recorded that Coronavirus had a limited impact on brand loss (e.g., food, utilities, pharma, telecoms, soft drinks, household product and cosmetic and personal care), moderate implications for areas such as auto, media, spirits, tobacco, logistics, healthcare, technology, mining, iron and steel, commercial services, and engineering and construction, and high impact on beers, hotels, airlines, apparel, airport, banking, oil and gas, insurance, IT services, restaurant, leisure and tourism, and aerospace and defense.

Furthermore, Salinas (2020) mentions that the Coronavirus had a different impact on industry types (manufacturing versus services). Similar findings can be found in the recent report produced by the Economist (The Economist Intelligence Unit, 2020). In addition, Campaign (2020) and Brand Finance (Global 500, 2022) revealed significant differences in the scale of impacts on industry types. Since the results are inconclusive, the current study aims to investigate the impact of the Coronavirus on types of industry. Thus, this study proposes the following hypotheses:

H1a: There is a significant difference between the Top 10 most valuable ASEAN countries' brands due to the impact of Coronavirus in 2019–2020.

H1b: There is a significant difference between the Top 10 most valuable ASEAN countries' brands due to the impact of Coronavirus in 2019–2021.

H1c: There is a significant difference between the Top 10 most valuable ASEAN countries' brands due to the impact of Coronavirus in 2020–2021.

H2a: There is a significant difference between industry types within the Top 10 most valuable ASEAN countries' brands due to the impact of Coronavirus in 2019–2020.

H2b: There is a significant difference between industry types within the Top 10 most valuable ASEAN countries' brands due to the impact of Coronavirus in 2019–2021.

H2c: There is a significant difference between industry types within the Top 10 most valuable ASEAN countries' brands due to the impact of Coronavirus in 2020–2021.

Moreover, this study incorporated the resource-based view theory as proposed by Wernerfelt (1984), Rumelt (1984), and Barney (1986) as a means of assessing brand performance. The theory was used to analyze the competitive advantages and other aspects of business ventures that relate to obtaining multi resources such as attracting investors, management skills, and managing operations and markets to survive and grow in the industry (Barney, 1991). In the context of brand equity, the resource-based view theory supports that a firm comprises two types of resources: tangible resources and intangible resources. Continuous competitive advantage can be attained when the resources are contrary and stagnant. Strong brands can create a positive image and boost brand loyalty and images, which are features of brand equity. These intangible resources can create a continuous competitive advantage for a company and are difficult to emulate (Chaudhry & Ramakrishnan, 2019). This theory allows brand managers to spread resources to align with strategies designed to identify the value of such resources and the capabilities required to achieve a competitive advantage for the organization. In addition, they provide managers with a snapshot of strength for interventions or for mergers and acquisition purposes which will create more value for the brand.

3. Research Methods and Materials

This study used content analysis to analyze the Brand Finance annual reports and determine the extent of brand value reported by the Top 100 most valuable brand companies in ASEAN countries. This approach was suggested by Wolfe (1991) and has been adopted by many scholars (e.g., Esa et al., 2022). The annual report of each ASEAN country was examined to determine the differences in brand value for three consecutive years from 2019 to 2021. In this case, the year 2019 is considered as a year without the Coronavirus, whereas 2020 and 2021 are the Coronavirus years. To rank Coronavirus impact, this study used 4 types of scales proposed by Salinas (2021). Scale 1 is given to the Top 10 most valuable brands experiencing no Coronavirus impact (at least 1% brand value gain), Scale 2 is for the brands which experienced limited impact (0% to 10% brand value loss), Scale 3, referred to as moderate impact (11% to 20% brand value loss), and Scale 4 is tagged as a massive impact (above 20% brand value loss). The data was analyzed using IBM Statistical Package for Social Science

(SPSS) Statistics for Windows, Version 24.0. A few analyses, such as frequency, independent-samples *T*-test, and one-way analysis of variance (ANOVA), were applied to the data. In this study, the researchers only managed to obtain the brand values of four ASEAN countries because Brand Finance produced no brand report for six ASEAN countries: Brunei, Laos, Myanmar, Thailand, the Philippines, and Cambodia.

Additionally, brand equity in this study was determined by Brand Finance calculating the values of the brands in its league tables using the Royalty Relief approach (The Brand Finance Group, 2016). Brand Finance used a specific formula, "Brand Strength Index (BSI) × Brand 'Royalty Rate' × Brand Revenues = Brand Value," to calculate the brand value.

4. Results and Discussion

Table 1 shows the brand profiles from four ASEAN countries, namely Malaysia, Singapore, Indonesia, and Vietnam. It indicates that only the Top 10 most valuable brands in Malaysia consistently ranked from 2019 to 2021. However, two of the Top 10 most valuable brands from Indonesia, Singapore, and Vietnam did not appear in the three consecutive years (2019–2021), which meant the selected brands were only eight instead of 10. Regarding

brands sectors, the Top 10 most valuable ASEAN countries' brands were categorized into eleven sectors: banks (32.4%), telecoms (20.6%), oil and gas (11.8%), food/beer (8.8%), tobacco, and airlines (5.9%), and automobiles, casinos and gambling, utilities and real estate with 2.9%. Moreover, Table 1 also illustrates the brands' types of industry. The majority of the Top 10 most valuable ASEAN countries' brands are services, and 10 brands or 29.4% are involved in manufacturing goods.

Table 2 shows the brand sectors and industry types of the Top 10 most valuable ASEAN brands. Regarding the brand sectors, the Top 10 Indonesian brands are dominated by banks. The findings are similar to the Top 10 most valuable Singapore and Malaysia brands. The Top 10 most valuable Vietnam brands are different from the other three ASEAN countries in that their most valuable brands are telecoms. In addition, the majority of the Top 10 most valuable brands from the four ASEAN countries are services.

Table 3 illustrates the Coronavirus impact on brand equity comparing the three consecutive years, 2019–2020, 2019–2021, and 2020–2021 for the four ASEAN countries. As shown in Table 3, Coronavirus impact is divided into 4 categories such as no impact (at least 1% brand value gain), limited impact (0% to 10% brand value loss), moderate impact (11% to 20% brand value loss), and massive impact

Table 1: Top 10 Most Valuable Brand Profiles (n = 34)

Elements	Categories	Number	Percent (%)
ASEAN Country	Malaysia	10	29.4
	Singapore	8*	23.5
	Indonesia	8*	23.5
	Vietnam	8*	23.5
Brands Sectors	Airlines	2	5.9
	Automobiles	1	2.9
	Banks	11	
	Casinos and gambling	1	2.9
	Food/Beer	3	8.8
	Insurance	1	2.9
	Oil & Gas	4	11.8
	Telecoms	7	20.6
	Tobacco	2	5.9
	Utilities	1	2.9
	Real estate	1	2.9
Industry Types	Manufacturing	10	29.4
	Services	24	70.6

Note: *2 of the top 10 most valuable brands in Indonesia, Singapore, and Vietnam cannot be part of the sample in the list because the brands are not listed in 2019, 2020, and 2021. Thus, the researchers cannot compare the brand values in 2019, 2020, and 2021.

Table 2: Brand Sectors	Industry	Types and ASEAN Cour	try	(n = 34)
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Elements/ASEAN Country	Malaysia	Singapore	Indonesia	Vietnam
Brand Sectors				
Airlines	1	1		
Automobiles	1			
Banks	3	3	4	1
Casinos and gambling	1			
Food/Beer		1		2
Insurance		1		
Oil & Gas	1	1	1	1
Telecoms	2	1	1	3
Tobacco			2	
Utilities	1			
Real estate				1
Industry types				
Manufacturing	2	2	3	3
Services	8	6	5	5

Table 3: Coronavirus Impact on ASEAN Countries

Import/Erogueney	2019–2020		2019	-2021	2020–2021		
Impact/Frequency	Frequency	Percent (%)	Frequency	Percent (%)	Frequency	Percent (%)	
No impact (at least 1% brand value gain)	21	61.8	8	23.5	4	11.8	
Limited impact (0% to 10% brand value loss)	4	11.8	7	20.6	16	47.1	
Moderate impact (11% to 20% brand value loss)	6	17.6	10	29.4	9	26.5	
Massive impact (above 20% brand value loss)	3	8.8	9	26.5	5	14.7	

(above 20% brand value loss). Findings in 2019–2020 show that most (61.8%) of the top 10 most valuable of the four ASEAN countries had no Coronavirus impact, and only 8.8% or 3 brands received a massive Coronavirus impact. On another note, 55.9% of the top 10 most valuable brands were affected by Coronavirus in 2019–2021. However, 23.5% of brands were not affected by Coronavirus. Moreover, when comparing the Coronavirus impact in 2020–2021, the majority of the brands fell below the limited impact (47.1%). The results indicate that the Coronavirus's impact will influence the company's brand performance in the long run. Thus, the companies need to strategize their marketing activities or initiatives and focus more on digital utilization to maintain brand value and rankings.

To test the hypotheses, two types of analyses were tested to data, such as ANOVA and an independent *T*-test. A series of one-way between-subjects' ANOVA were conducted to explore the Coronavirus impact, from 2019 to 2021, on the Top 10 most valuable ASEAN countries. In this study, ASEAN countries were divided into four groups (Group 1:

Malaysia; Group 2: Singapore; Group 3: Indonesia; Group 4: Vietnam). Table 4 indicates that there was no statistically significant difference between the ASEAN country groups due to the impact of Coronavirus, particularly in 2020–2021. Thus, Hypothesis 1c is not supported. However, there were statistically significant differences at the p < 0.05 level in the years of 2019–2020 and 2019–2021 for the four ASEAN countries: F(3, 30) = 6.025, p = 0.002 and F(3, 30) = 6.295, p = 0.000 respectively. Hence, Hypothesis 1a and Hypothesis 1b are supported. Importantly, the actual difference in mean scores between the groups was large. The effect size, calculated using eta squared, was 0.376 (2019–2020) and 0.447 (2019–2021). According to Cohen (1988), these figures have large effect sizes.

Table 5 displays the post hoc comparisons using the Tukey HSD test which indicated that the mean score for Malaysia (M = 2.30, SD = 1.252) was significantly different from Indonesia and Vietnam (M = 1.13, SD = 0.354; M = 1.00, SD = 0.000) for the construct of Coronavirus impact in 2019–2020 respectively. In addition, the mean score for

Table 4: One-Way ANOVA of Constructs by ASEAN Country

Measure		Sum of squares	df	F-stat	Sig.	Eta squared*	
2019–2020	Between groups	13.768	3	6.025	0.002	0.376	
	Within groups	22.850	30				
	Total	36.618	33				
2019–2021	Between groups	18.885	3	6.295	0.000	0.447	
	Within groups	23.350	30				
	Total	42.235	33				
2020–2021	Between groups	3.632	3	1.597	0.211	_	
	Within groups	22.750	30				
	Total	26.382	33				

Note: df: degrees of freedom; ETA squared*: Sum of squares between-groups/Total sum of squares.

Table 5: Post Hoc Tests-ASEAN Country

	ASEAN Country (A)	ASEAN Country (B)	Mean	SD	MD(A-B)	Std. Error	Sig.
2019-2020	Malaysia	Singapore	2.30	1.252	-0.075	0.414	0.998
		Indonesia			1.175*	0.414	0.038
		Vietnam			1.300*	0.414	0.019
	Singapore	Malaysia	2.38	1.061	0.075	0.414	0.998
		Indonesia			1.250*	0.436	0.036
		Vietnam			1.375*	0.436	0.018
	Indonesia	Malaysia	1.13	0.354	− 1.175*	0.414	0.038
		Singapore			-1.250*	0.436	0.036
		Vietnam			0.125	0.436	0.992
	Vietnam	Malaysia	1.00	0.000	-1.300*	0.414	0.019
		Singapore			-1.375*	0.436	0.018
		Indonesia			-0.125	0.436	0.992
2019–2021	Malaysia	Singapore	2.80	1.229	-0.700	0.418	0.355
		Indonesia			0.175	0.418	0.975
		Vietnam			1.425*	0.418	0.010
	Singapore	Malaysia	3.50	0.535	0.700	0.418	0.355
		Indonesia			0.875	0.441	0.217
		Vietnam			2.125*	0.441	0.000
	Indonesia	Malaysia	2.63	0.744	-0.175	0.418	0.975
		Singapore			-0.875	0.441	0.217
		Vietnam			1.250*	0.441	0.039
	Vietnam	Malaysia	1.38	0.744	-1.425*	0.418	0.010
		Singapore			− 2.125*	0.441	0.000
		Indonesia			-1.250*	0.441	0.039

Note: SD: Standard Deviation; MD: Mean Difference; *The mean difference is significant at the 0.05 level.

Singapore (M = 2.38, SD = 1.061) was significantly different from Indonesia and Vietnam (M = 1.13, SD = 0.354; M = 1.00, SD = 0.000). In relation to the Coronavirus impact in 2019–2021, the results revealed that the mean score for Vietnam (M = 1.38, SD = 0.744) was significantly different from Malaysia, Singapore and Indonesia (M = 2.80, SD = 1.229; M = 3.50, SD = 0.535; M = 2.63, SD = 0.744) respectively.

The results are due to the market capitalization of large size companies in Malaysia, Singapore and Indonesia.

Next, an independent-samples T-test was conducted to compare the Coronavirus impact on manufacturing and services (industry types). Table 6 shows no significant difference in scores for manufacturing (M = 1.60, SD = 1.075; M = 2.60, SD = 1.174; M = 2.70, SD = 0.949) and services

Measure		Manufacturing (N = 10)	Services (N = 24)	t-value	df	p-value
2019–2020	Mean	1.60	1.79	1.093	32	0.283
	SD	1.075	1.062			
2019–2021	Mean	2.60	2.58	-0.478	32	0.636
	SD	1.174	1.139			
2020–2021	Mean	2.70	2.33	0.038	32	0.969
	SD	0.949	0.868			

Table 6: Comparing the Industry Types with Coronavirus Impact

(M=1.79, SD=1.062; t (32) = 1.093, p = 0.283; M = 2.58, SD=1.139; t (32) = -0.478, p = 0.636; M = 42.33, SD=0.868; t (32) = 0.038, p = 0.969, two-tailed) with all observed years. These results suggest that industry type does not indicate any significant difference resulting from the impact of the Coronavirus. Thus, Hypothesis 2a, 2b, and 2c were not supported.

With regards to a resource-based view theory, the findings of this study indicate that the Top 10 most valuable ASEAN countries' brands have experienced limited to moderate Coronavirus impact because strong brands can usually cope with unprecedented circumstances and sustain their brand equity values. Balis (2020) highlights that brand equity could enhance the positive image and boost brand loyalty even in trying times. Chaudhry and Ramakrishnan (2019) also mentioned that brand equity (intangible resources) could create a continuous competitive advantage for a company and is difficult to copy. This will encourage the brand leaders to design the best strategy to benefit their brands. The findings also revealed significant differences between the level of Coronavirus impact experienced by the Top 10 most valuable ASEAN country brands. Thus, the brand leaders can better understand how top ASEAN brands can minimize the impact of the Coronavirus.

In terms of practical implications, the brand leaders or managers of the Top 10 most valuable ASEAN countries' brands need to act quickly within the current scenario and plan for post-crisis times. Even though most strong brands are less exposed to Coronavirus impact, companies still need to allocate more funds and resources to digital platforms and research new preferences for better product or service offerings. To maintain brand equity, brand managers also need to understand the impact of business interruption and triage the unexpected. In addition, brands must communicate and connect with customers using digital means because this will likely have lasting effects. Importantly, to sustain brand equity, the customer experience is critical, and thus companies need to find ways to mitigate customer experience risks.

5. Conclusion

Based on the findings, two Hypotheses (H1a and H1b) have been supported, and the remaining hypotheses (H1c,

H2a, H2b, and H2c) are not supported. According to the ANOVA test, the current study confirmed that the Top 10 most valuable ASEAN countries' brands had experienced significant differences in terms of Coronavirus impact in 2019-2020 and 2019-2021. The findings are in line with the reports produced by Brand Finance (2021a) and recent works of Balis (2020) and Dumouchel et al. (2020). On another note, most of the Top 10 most valuable ASEAN countries' brands are categorized as services at 70.6%. This indicated no significant difference between the industry types of the Top 10 most valuable ASEAN countries' brands and Coronavirus impact in all observed years. Thus, Hypothesis 2a, 2b, and 2c are rejected and unable to support the past works of The Economist Intelligence Unit (2020) and Salinas (2020). The findings can provide future business owners or investors an idea to identify which ASEAN countries' most valuable brands and industry types have experienced no or limited Coronavirus impact.

The current study only assessed the Top 10 most valuable ASEAN countries' brands from the Top 100 as defined by Brand Finance. Thus, a future study could include more top brand samples to generalize the findings. In addition, the main source (Brand Finance) has produced only 4 ASEAN countries' Top 100 most valuable brands reports; future studies could focus on other economic blocs to investigate the impact of the Coronavirus impacts. Finally, the current research has concentrated on brand equity, and future studies could assess the characteristics of strong brands, including their logos, colors, and other features and how they were impacted by the Coronavirus.

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