

Impact of Facebook Advertising on E-brand Equity: examining the Moderating Effect of Negative Sentiments with the Special Reference to Telecommunication Industry in Sri Lanka

E-brand
Equity

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Abstract

Facebook advertising has become one of the most used social media advertising platforms in the Sri Lankan telecommunication industry. The industry is growing rapidly over the past decade of time and demand for telecommunication services has been enormously raised. In today's context, telecommunication service providers utilize Facebook advertising to accomplish specific marketing goals and objectives. Thus this study aims to interpret how Facebook advertising affects e-brand equity. Moreover, the researcher's secondary aim is to examine the moderate role of negative sentiments. This analysis was quantitative and structured questionnaires were used to obtain primary data from the sample. The study used the convenience sampling method, which comes under non-probability sampling and three hundred thirty-three responses were collected from the western province which includes Colombo, Gampaha and Kalutara districts. The data were analyzed using the software SPSS 25 to obtain descriptive statistics, comparing mean analysis and correlation analyses. The findings of the study revealed that Facebook advertising significantly impacted e-brand equity while negative sentiments significantly moderated the relationship between Facebook advertising and e-brand equity. Finally, the study contributes with several strategies for the telecommunication industry with their Facebook advertising practitioners in planning the advertising campaigns and improving the existing practices.

Keywords: Brand equity, E-brand equity, Facebook advertising, Negative Sentiments, Sentiments analysis.

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Introduction

Due to the emergence of technological interaction mechanism, business entities have faced different set of factors during their operations. It directs people to having different attitudes towards certain types of advertising methods. According to the Digital Landscape report of 2020 there are 6.40 million people who have the accessibility to the internet facilities and it has been a growth when it compares with 2019 digital landscape report (Digital Landscape, Hootsuite 2019/2020). When it comes to usage and business expansion, social media advertising has gained a huge reputation over the past decade of time (Ameen, 2020; Ertugan, 2017; Rammal, 2019). Facebook is one of the most popular platforms when it comes to the advertising of different products and services. It has been mentioned that certain cultural factors which was identified by Hofstede and it caused to impact individual's attitudes through Facebook advertising (Abuhashesh, 2019; Jin, 2018). Since almost everyone has a Facebook account these days, it is extremely simple for businesses to promote their products and services via Facebook advertising. In terms of dependability, speed, and ease of approach, it is the most effective method of advertising when compared to other methods. Previous writers shown that Facebook advertising has the capacity to enhance people's buying intentions (Jermitsittiparsert, 2019).

Social media marketing (SMM) is an essential digital marketing method that has introduced a new dimension to the current marketing arena (Koay et al., 2020; Felix et al., 2017). Effective social media communication may boost the efficacy of brand marketing initiatives (Dwivedi et al., 2020). In general, corporations construct various social media brand sites to provide brand-related information in a timely and cost-effective manner in order to build strong brand equity (BE), which results in increased sales and profit for the firms (Ebrahim, 2020; Burnasheva et al., 2019; Choiet al., 2016; Chou, 2014; Kim and Ko, 2012). Brand equity is a key notion in brand marketing that is utilized to get a competitive edge in the marketplace (Lassar et al., 1995; Ambler and Styles, 1996; Schivinski and Dabrowski, 2016). The concept of Brand equity is also known as consumer-based brand equity (CBBE) (Keller, 2013; Aaker, 1996). Brand Equity does not have commonly accepted explanation (Baalbaki and Guzman, 2016; Veloutsou, 2013). But according to (Leon, 2016) customers' thoughts, perceptions, experiences and pictures about brands are very useful explanations on brand equity. As per the view of (Aker, 1991; Keller, 1993) includes four major aspects such as brand awareness, brand perceived quality, brand association and brand loyalty. Perceived quality is customer's perception about the total equity of the brand. With the rise of the internet and the technological development brand equity has been derived into a new level of scale. The advancement of network technologies allows enterprises' business activities to move from the physical world to virtual space. The concept of website brands is important for conducting research both theoretically and practically. The website brand can be divided into two categories based on its functions: "derivative website brand" and "pure website brand" (Liyan, 2009). There are major dimensions of e-brand equity such as brand awareness, brand association, perceived quality, e-brand experience, e-satisfaction, e-brand experience, -loyalty (Quan; Chi; Nhung; Ngan; Phong, 2020). . The firms with the lowest brand equity have the weakest brand position. Their market position is not based on consumer confidence in the quality of their products, and consumers have low expectations because the brand is not well-known (Veloutsou and Moutinho, 2009).

Context of the Study and Research Objectives

Sri Lanka emerges as a service sector-driven economy with a penetration of GDP of 50%-60% from the service sector. In 1977, after opening the country for an open economy policy, local brands had to gear ahead with the intensive competition of some foreign brands and at present, the telecommunication industry has been dominated by international brands (Dissanayake and Weerasiri, 2010). The telecommunication industry in Sri Lanka has massive completion and major players strive to keep their customers while attracting new customers to increase their market share in the particular industry. In the industry, companies tend to implement promotions which increase their reputation and persuade customers (Jayawickramarathna, 2014).

The telecommunication industry in Sri Lanka is an oligopolistic market since the industry contains Dialog, Sri Lanka Telecom, Mobitel, Airtel, Hutch, Etisalat, and Lankabell as the industry giants. In modern day telecommunication companies provide many services compared to the last decade of time. They provide fixed phone services, mobile phone services, mobile and home broadband services, cable television services, mini satellite television services etc. The telecommunication sector is governed by the Sri Lankan telecommunication Act, No.25 of 1991 as amended by Act, No.27 of 1996 and by the institution formed under the act, The Telecommunication Regulatory Commission of Sri Lanka (K.A. Silva 2009). The below table illustrates the cumulative number of licenses granted under section 17 of the Sri Lankan Telecommunication Act, No. 25 of 1991 as amended.

Table 01. Telecommunication Service Categories

Category of Service	2021 March
1. Fixed Access Telephone service	3
3. Cellular Mobile Telephones	4
3. Data Communications (Facility based)	2
4. Data Communications (Non-facility based & Internet Service Providers (ISP))	3
5. Trunk Mobile Radio	1
6. International Telecommunication Operators	6
7. Direct-to-Home Satellite Broadcasting Service	5
8. Cable TV Distribution Network	3
9. Other Operators	2
Sub Total	29

Source: TRCSL Report 2021 March

People tend to use the internet and they are very active in social media platforms. Currently, people have no qualms in accepting that being addicted to social media gains relaxation and happiness. With the increase in internet usage people are very open and capable enough to post or comment on their opinions without any situation.

When it comes to the telecommunication industry there is a huge engagement with their customers since it has become a modern-day need and as well as this pandemic situation has

increased the requirement of telecommunication items much more. Considering the many industries such as education, higher education, retail business, IT services, business services are more connected with telecommunication services. Further, they have very complex and differentiated services for many customers while the telecommunication industry is an oligopolistic market in Sri Lanka. One of the most trending and profit-generating services is internet service providing. They conduct many online and offline promotional campaigns for this category. From those two categories, online promotions are at a highly engaging level since most of the people from their target market are very interactive with social media and other digital platforms. From that also Facebook advertising is in the highest level when compared with the size of the target audience, the value of advertising money they expend, etc. In the last few months and ongoing time, there is a huge rise in negative sentiments for telecommunication brands' Facebook advertising campaigns. Social media has omitted the distance between the customer and the brand in their platforms. Although there are few companies in the industry there is a lot of variety of products and services available and heavy marketing, and promotions are implemented across the platforms. It has become more viral, and people tend to make negative sentiments without any hesitation with them. When it comes to telecommunication service providers, they have tended to post more paid advertisements rather than any sector company. Due to the various service quality in different areas and bad customer service in different platforms, people tend to experience difficulties while they use their services. Hence people tend to criticize their services and the brand in the social media platforms. Especially in the Facebook. Customers post negative sentiments such as negative comments, 'Haha' and Angry reactions to their posts, funny memes etc. With all of that it can be affected to their brand equity as well. Hence this study is conducted to measure the exact impact of Facebook advertising on e-brand equity with the moderating effect of negative sentiments.

Literature Review and Hypothesis

This paper reviewed and justified empirical contribution gathered within the main concepts of Facebook advertising, brand equity, e-brand equity, and negative sentiments.

Facebook Advertising

Since almost everyone has a Facebook account these days, it is extremely simple for businesses to promote their products and services via Facebook advertising. In terms of dependability, speed, and ease of approach, it is the most effective method of advertising when compared to other methods. Previous writers shown that Facebook advertising has the capacity to enhance people's buying intentions (Jermstittiparsert, 2019). Businesses can go far beyond using Facebook by extending the client experience from the formal introduction on the sites to progressively up-to-date information. This would allow firms to persuade and boost prospective customers. If the data is exact, it has the potential to persuade easygoing programs of the places to become customers. As a result, the totality and accuracy of data available on Facebook pages might have a positive or negative impact on users' purchasing intentions. This is a critical aspect in ensuring that their web-based advertising system is sufficiently captivating in influencing their consumers' utilization goals as well as purchasing decisions (Jermstittiparsert et al, 2019). Survival in the business market, particularly for small enterprises, is extremely difficult in today's highly

competitive and globalized world. The case for new businesses in the early stages is considerably more difficult. Small firms sometimes lack a substantial marketing budget (Creswell & Creswell, 2017).

Given how simple it is to use Facebook and how popular it is among the current generation, the small business owners must maximize the potential and plan how to properly use the marketing tool. Various social media platforms, such as Facebook, can boost consumer involvement, and the latter can contribute to customer loyalty and growth in the medium to long term (Li, Teng, & Chen, 2020). It provides a great platform for companies to create their presence, sell their products and services, meet new and long-term consumers, and, most importantly, generate sales and profit (Tran, 2017). Facebook advertising is a critical social media advertising platform that allows customers to like and share product and service opportunities (Akhter 2020; Karim 2015; Mahmud et al., 2015). Facebook develops extensive venues for viral internet services (Smock et al., 2011). This advertising identifies the market's prospective buyers (Dehghani and Tumer, 2015). Facebook advertising to social media consumers on social media platforms, Facebook advertising allows social media marketing and advertising technology to engage with and reach the company industry, allowing them to better their business information (Rehman et al., 2014). However, consumer happiness is dependent on advertisement, in which social media platforms such as Facebook and YouTube provide information to targeted customers (Karim et al., 2014; Sharif et al., 2017; Latif et al., 2021; Karim et al., 2021). As a result, Facebook offers a wide range of applications and functions, such as FB groups, newsfeeds, reviews, and events. These characteristics help businesses to maintain an engaging engagement with their consumers. Brand advertising messages sent via Facebook advertising have an effective attitudinal stimulant on purchasing intentions (Duffett, 2015). Furthermore, the primary goal of utilizing social media for advertising and communication is to modify the consumer's decision-making process, which aids in the creation of buy intent among them (Tuten and Solomon, 2017).

E-brand Equity

Brand equity is a key marketing performance metric (Chatzipanagiotou et al., 2016; Davcik et al., 2015). There is no agreed-upon definition of brand equity (Baalbaki and Guzman, 2016; Veloutsou et al., 2013). Brand equity is described as the value that a brand name and its associated meaning(s) bring to a product above and beyond its physical features, resulting in a differentiating consumer response (Ailawadi et al., 2003). Aaker (1991) developed a conceptual framework on brand equity and suggested five dimensions of brand equity, that are brand awareness, brand associations, perceived quality, brand loyalty and other proprietary brand assets. Keller (1993) noted that brand knowledge is a dimension of brand equity. According to Keller (1993), brand knowledge consists of brand awareness and brand image. Thus, Keller (1993) description of brand image is same as brand associations described by Aaker (1991).

With the appearance and subsequent boom of the internet leading to the emergence of a new marketing paradigm relationship, companies have deeply changed in the way they approach their customers (Jobber and Chadwick, 2013). Web 2.0 technologies provide numerous benefits to their users; their functionality is advantageous in that users can not only exchange information and connect with other users, but some businesses have improved their business performance.

(Soewandi et al, 2015). As a result, businesses are increasingly utilizing social media to connect customers, increase traffic, generate a loyal following, build a dedicated fan-base, and improve sales (Stelzner, 2014). An academic interest in the area of online brands' equities measurement emerged after the dotcom crisis in 2001, when newborn online companies including Amazon.com, Yahoo!, Google, eBay, Facebook not only survived but even overgrew traditional offline companies in terms of brand equity (Rios & Riquelme, 2010). The alternative evaluation systems with unique Internet dimensions are proposed, e.g. Online Retail/Service or ORS for estimation of retail brand equity of Internet firms (Christodoulides, Chernatoni, Furrer, Shiu, & Abimbola, 2006). The special terms like e-brand equity (Le, Tran, Pham, & Tran, 2018), website brand equity (Liyin, 2009), online brand equity (Rana, Bhat, & Rani, 2015), and Consumer-Based E-business Brand Equity (Ma, 2016) exemplify a customized approach to brand equity in online context to point out its virtual character. WOM through social networks such as Facebook can be properly valued, as it has the potential to become an integral tool in any marketer's arsenal and to significantly help build a company's brand equity (Zeisser, 2010). In this context, brand equity is defined as a formidable marketing weapon for modern firms when confronted with product parity, replacement, and competition (Morgan and Pritchard, 2002). With the advancement of social media, marketers today enjoy significant competitive advantages in effectively promoting online products and services. As a result, it stands to reason that both social media communication and brand equity are critical to gaining a competitive advantage. Hence it is important and essential to investigate whether social communication, namely the use of Facebook, has any impact on its brand equity (Nguyen, 2019).

Negative Sentiments

Consumers are using social media platforms to learn about and exchange information about brands. Consumers are exposed to many online reviews on brands in the virtual world, which leave an impression of the brands on the minds of the consumers (Bhat and Chakraborty, 2018). In today's digital age, customers are increasingly ready to use WOM online, which is known as electronic word of mouth (EWOM). They use social media platforms to learn and share brand knowledge (Gopinath, 2014). Consumers are joining various online platforms and sharing their brand-related experiences and recommendations with others (Matzler, 2011). Consumers' information-seeking and information-sharing behavior has been increasing rapidly (Grant 2007; Smith, 2011).

With the rise of web material comes an increase in hate speech on many platforms, which necessitates the use of a proper screening tool for natural language processing (Schmidt and Wiegand 2017). The increased availability of information in social media makes sentiment analysis increasingly important; related research has been divided into three primary features of the application. From a business standpoint, sentiment analysis may give online guidance and suggestions to both customers and merchants. On the one hand, the data shows user references that may be utilized to assist e-commerce platforms in examining their items and services. On the other hand, due to the virtual character of online purchasing, it is difficult to comprehend a commodity thoroughly and objectively, and if the customer is eager to learn about the comments or thoughts of other consumers (Yue; Chen; Li; Zuo; Yin; 2018) However, when confronted with a significant number of negative product reviews, customers are more likely to perceive a high

level of consensus (Chiou and Cheng, 2003) and hence draw negative conclusions about the brand, leading to even more negative brand assessments (Laczniak et al., 2001).

Hypotheses Development

Mujahid (2015) stated that social media advertising awareness directly connects with the brand equity. The impact of social media marketing activities in raising brand awareness and developing a positive brand image, which affects consumer loyalty. Further social media activities have a direct impact for brand equity dimensions (Ebrahim, 2019). According to the Sharma and Sahni (2015), stated that there is a significant relationship on Facebook advertising and brand equity. Brands use their internet presence as a means of communicating with their customers. With the increasing spread of the virtual marketplace, the topic has stimulated the interest of researchers, and online brand experience (specifically e-brand experience) emerged as a new research area at the turn of the century (Constantinides, 2004; Lin, 2008).

Sentiment analysis is also called opinion mining and it's used to examine people's feelings, emotions, and attitudes toward things like products, services, events, and themes. (Liu, 2012). Negative sentiments are a rising element in social media platforms. Consumers are increasingly turning to social media to provide their opinions on brands (Tsimonis and Dimitriadis, 2014). Because the consumer–brand relationship is no longer just defined by purchase or consumption (Quinton, 2013). Companies ignore this feedback at their risk since these channels provide dissatisfied customers with speed, ease, visibility, permanence, reach, and impact in voicing their admonition of enterprises. (Wollney and Mueller, 2013). In today's digital age, customers are increasingly ready to use WOM online, which is known as electronic word of mouth (EWOM). They are use social media platforms to learn and share brand knowledge (Gopinath, 2014). Consumers are joining various online platforms and sharing their brand-related experiences and recommendations with others (Matzler, 2011). As texts frequently contain a mix of positive and negative sentiment, identifying the polarity of sentiment in the text (positive, negative, or neutral) and even the strength of sentiment represented is often useful and it moderates Facebook advertising (Weronski, 2012; Pang and Lee, 2008). Likewise, this paper contributed newness to existing knowledge by examining the role of Facebook advertising on e-brand equity moderated by negative sentiments.

H1: Facebook advertising has a significant impact on e-brand equity.

H2: Negative Sentiments moderate the relationship between Facebook advertising and e-brand equity.

Methodology

Two types of time horizons are found in literature: cross sectional and longitudinal, in cross sectional study it collects data as whole in a single point of time whereas longitudinal studies intend to collect data several times from the same sample repeatedly (Sahay, 2016) Thus, the time horizon of the present study can be selected as one-shot/ cross-sectional which means data were gathered only one time (Mark N.K. Saunders, 2009). The practical implications influence the selection of a given research philosophy. Positivism, which is based on two primary ideologies,

positivism and interpretivism, is based on quantifiable observations that lead to scientific knowledge and statistical studies (Business Research Methodology, 2011). In this case, the researcher is not involved in the study. Only quantitative data is gathered. However, under interpretivism, the researcher is a component of the study and knowledge associated with the research (Business Research Methodology, 2011), hence a positivistic research technique is used here. The Reliability Analysis procedure computes a number of commonly used measures of scale reliability as well as information about the relationships between individual scale items. Concerning the scales' reliability, it used Cronbach's alpha (Chronbach, 1970) with a cut-off value of 0.7 (Nunnally, 1978). For the validity test, if the value of KMO is larger than 0.5, the sample is considered adequate in the Bartlett's Test - Taking a 95 percent level of Significance p-value (Sig.) of .000 0.05 regarded valid range. According to the Saunders & A (2009), it is not required for data to be completely normally distributed. It is necessary to data should approximately distributed. Skewness and Kurtosis representation has been used as the criteria of normality test. The acceptable range for skewness and kurtosis is less than 3 and less than 10.

Data collection was executed during the last quarter of year 2021 which the people exposed to Facebook advertising which was done by telecommunication companies in Sri Lanka. Finally responses were collected from 384 respondents Convenient sampling method has been used and a qualifying question was included to filter the exact participants to be surveyed. The descriptive statistical method has been used to analyze demographic data. Due to the difficulty to collect data from every member of the population, researchers will choose a sample. The sample should include all of the features of the population (Saunders & A, 2009). Due to the pandemic situation in the country the researcher will collect the data through a Google form. According to the sample calculator 384 online survey respondents will be collected of both, males and females from the western province Sri Lanka.

Results and Discussions

Analysis of Sample Profile

As a summary of demographic data, 58% of people have fallen under male category while female respondents were 42%. 31.5% of majority represent the 20 age category. 32.4% of respondents were undergraduates 53.5% were living in Colombo district. It reflects more than 80% of respondents have been exposed to Facebook advertising which is published by telecommunication companies in Sri Lanka.

Results of Normality, Reliability and Validity

Concerning the scales' reliability, it used Cronbach's alpha (Chronbach, 1970) with a cut-off value of 0.7 (Nunnally, 1978). When it considering the independent and dependent variables of the study, Facebook advertising has recorded 0.920 of reliability Cronbach alpha value which is greater than 0.7. Ebrand equity, the dependent variable of the study state that the reliability Cronbach alpha value is 0.926 which is greater than 0.7. Negative sentiments have stated the reliability Cronbach alpha value is 0.869. Hence all the Cronbach alpha values of major variables are greater than 0.7.

The overall outcome of KMO and Bartlett's test. The table shows that the overall KMO value is 0.953 and the Bartlett's Test (sig) value is 0.000, both of which are within the acceptable range. Hence the study states that validity of this study is capable enough to measure what it seeks to assess, as the statistical values of the research instrument demonstrated its overall validity in relation to the study.

Normality tests are used in statistics to examine if a data set is well-modeled by a normal distribution and to compute the likelihood that a random variable underlying the data set is normally distributed. The acceptable range for skewness and kurtosis is less than 3 and less than 10. As a result, we can conclude that the data is approximately normal (Kilne, 2011).

Table 02. Reliability Analysis

Construct	Items	Cronbach Alpha
Facebook Advertising	11	0.920
E-brand equity	11	0.926
Negative Sentiments	5	0.869

Source: Authors' computation

Table 03. Validity Analysis

Construct	Items	KMO	Significance	Bartlett's Test of Sphericity
Facebook Advertising	11	0.925	0.000	2165.131
E-brand equity	11	0.928	0.000	2189.534
Negative Sentiments	5	0.800	0.000	898.114

Source: Authors' computation

Table 04. Normality Test

	Skewness		Kurtosis	
	Statistics	Std. Error	Statistics	Std. Error
Facebook Advertising	0.159459	0.134	-0.26107	0.266
E-brand equity	0.177693	0.134	-0.17827	0.266
Negative Sentiments	-0.01196	0.134	-0.04732	0.266

Source: Authors' computation

Reporting Findings: Testing Hypotheses

Simple regression analysis has been used to test the direct hypothesis. This paper hypothesized two hypotheses out of which one hypothesis was direct path hypothesis. According to the results received from SPSS 25 simple regression analysis concluded summarized statistical estimates mentioned in Table 02.

Table 05. Reporting Direct Hypothesis

Relationship	R Square	P Value	Coefficient	Status
H1	FA ← EBE	0.697	0.000	0.835 Accepted

Note. FA: Facebook Advertising, EBE: E-brand Equity

Source: Authors' computation

According to the results given in the table 02, there is a positive and significant relationship between Facebook advertising and e-brand equity.

Reporting Result of Moderator

The moderator analysis will be done by using SPSS 25 Process v3.0 Andrew F. Hayes model as the moderating effect of negative sentiments investigated with impact of Facebook advertising on e-brand equity.

Table 06. Reporting Moderator

Relationship	Coefficient	SE	t	p	LLCI	ULCI	Status
H2	-0.0653	0.0115	-5.6917	0.000	-0.0878	-0.0427	Accepted

Source: Authors' computation

The above table 03 reflect that the moderating effect for the relationship between Facebook advertising and e-brand equity. By examining the data table, it reflects that the moderating effect is significant while P value is recorded as 0.000 which is lower than 0.05. Both lower level of confidence interval (LLCI) recorded as a minus value and upper level of confidence interval (ULCI) recorded as a minus value. Which means it does not include a zero in confidence interval. For the moderating effect to be significant either both LLCI and ULCI should recorded as positive or both should be negative (Hayes, 2020).

As a conclusion, the moderating effect of the study has a significant impact to the relationship between Facebook advertising on e-brand equity.

Recommendation and Conclusion

Facebook advertising reduce the gap between the company and customer because customer can easily reach out the company when they need any guidance or an assistance. Facebook advertising will directly impact with sales hence the lead generation campaigns are always into capturing new sales via online context. Since almost everyone has a Facebook account these days, it is extremely simple for businesses to promote their products and services via Facebook advertising. In terms of dependability, speed, and ease of approach, it is the most effective method of advertising when compared to other methods. Previous writers shown that Facebook advertising has the capacity to enhance people's buying intentions (Jermsittiparsert, 2019). Marketers must analyze the characteristics of their target consumers. Consumer

engagement is influenced by extraversion and receptivity to new experiences. (Kabadayi and Price, 2014). According to Packard and Wooten (2013), businesses should learn about and understand their customers because what they see on Facebook will lead to more action. The content uploaded on Facebook must be appealing to everyone who has been identified as a possible target client. Consumer behavior will be influenced by their awareness of the content. When it comes to the content marketing of Facebook advertising it is very important to rely upon with the accurate data when creating the set of advertisements. On the other hand it is very important to have simple set of content in terms rich customers' understanding in a better way. Always the Facebook page admins need to monitor their sentiments, at least once a month will be helpful for the company to identify in which areas that they are lacking with in terms of their service scope.

Conclusively, the Sri Lankan telecommunication industry has developed rapidly over the past few years, mainly because of privatization and it is still highly fragmented. In developing countries, the telecommunication industry is still typical (Dassanayaka; Serhan; Glambosk; Gleason, 2020). Almost every business and every young adult onwards the need of telecommunication services has a constant demand. Due the COVID—19 pandemic situation even children have the requirement of telecommunication services. The new data packages, call packages, SMS packages, and platform-based packages such as video streaming and video conferencing have been introduced to the raid demand emerged due to concepts emerged such as work from lean and work from home. With the measurements, respondents have marked their telecommunication service providers' characteristics as per their own experience that they have gained via Facebook advertising. Hence customers have closely looked into the benefits that they have via the various services, and it will always be compared with the product or service advertising as well as the user experience that customers will have.

Limitations

His study is limited to Facebook advertising. Hence if the study conducts with other social media platforms as well, the overall digital marketing impact would have been high in terms of measuring it with the e-brand equity of the particular industry. The telecommunication industry is spread throughout the island and measuring only the western province of Sri Lanka which includes Colombo, Gampaha, and Kalutara will limit the findings. If the study focuses on island-wide the output can be different from the existing outcome. As an example, the Southern province and Northwestern province also carry out a larger number of fixed and mobile connections. Nonetheless, this study is limited to the western province. As a result, when making decisions, the findings of this study should be considered in terms of such constraints. Furthermore, the current study only has 333 sample respondents, which is adequate to determine an exact conclusion; consequently, in order to obtain a more accurate result, the sample should include a higher number of respondents.

The study has used only the convenient sampling method due to the COVID-19 pandemic situation which affected the whole island with time and money constraints. The non-probability sampling method is slightly biased and the probability sampling method will provide a more accurate representation than the non-probability sampling technique. Further research can be conducted by using the probability sampling technique as well. Also, this study was a

quantitative study. Hence it would be more accurate and insightful if the study conducts via both quantitative and qualitative approaches.

In the digital marketing context, Facebook advertising is the only option which is relevant to measure e-brand equity. Further research can be done on other digital marketing platforms, other industries, and behaviours as well. Also, apart from measuring the impact future research can be included the effectiveness of digital marketing platforms as well.

Brand equity is one of the most used component and research areas when it considering past studies. But with the rise of information technology, artificial intelligence, and digital marketing electronic brand equity has been raised as an upgraded version of brand equity. There are very few studies have been conducted using this e-brand equity concept and further research can be done through this e-brand equity.

Moreover, due to the pandemic situation, work-from-home and work from learning concepts have emerged. A hence larger number of people tend to purchase more telecommunication services than the previous years. From that also exact customer behavior can be temporally changed and output might get differed from the current context.

References

- Ahmad, F., & Guzmán, F. (2021). Negative online reviews, brand equity and emotional contagion. *European Journal of Marketing*, 55(11), 2825-2870.
- Al Mamun, A., Saha, A. C., & Islam, A. (2022). Analyzing the uses of facebook advertising as a social media marketing technique of a bank: a study on a private bank limited. *International Journal of Marketing Research Innovation*, 6(1), 25-35. <https://doi.org/10.46281/ijmri.v6i1.1590>
- Bonta, V., Kumaresh, N., & Janardhan, N. (2019). A comprehensive study on lexicon based approaches for sentiment analysis. *Asian Journal of Computer Science and Technology*, 8(S2), 1–6. <https://doi.org/10.51983/ajcst-2019.8.s2.2037>
- Dasanayaka, S. W. S. B., Al Serhan, O., Glambosky, M., & Gleason, K. (2020). The business-to-business relationship: examining Sri Lankan telecommunication operators and vendors. *Journal of Business and Industrial Marketing*, 35(6), 1069–1087. <https://doi.org/10.1108/JBIM-06-2019-0303>
- Dhaoui, C., Webster, C. M., & Tan, L. P. (2017). Social media sentiment analysis: lexicon versus machine learning. *Journal of Consumer Marketing*, 34(6), 480–488. <https://doi.org/10.1108/JCM-03-2017-2141>
- Duffett, R. G. (2015a). Facebook advertising's influence on intention-to-purchase and purchase amongst millennials. *Internet Research*, 25(4), 498–526. <https://doi.org/10.1108/IntR-01-2014-0020>
- Duffett, R. G. (2015b). The influence of Facebook advertising on cognitive attitudes amid Generation Y. *Electronic Commerce Research*, 15(2), 243–267. <https://doi.org/10.1007/s10660-015-9177-4>

- Dunham, L. M., & Garcia, J. (2021). Measuring the effect of investor sentiment on liquidity. *Managerial Finance*, 47(1), 59–85. <https://doi.org/10.1108/MF-06-2019-0265>
- Ebrahim, R. S. (2020). The role of trust in understanding the impact of social media marketing on brand equity and brand loyalty. *Journal of Relationship Marketing*, 19(4), 287–308. <https://doi.org/10.1080/15332667.2019.1705742>
- Hamouda, M. (2018). Understanding social media advertising effect on consumers' responses: An empirical investigation of tourism advertising on Facebook. *Journal of Enterprise Information Management*, 31(3), 426–445. <https://doi.org/10.1108/JEIM-07-2017-0101>
- Hicks, A., & Lloyd, A. (2016). It takes a community to build a framework: Information literacy within intercultural settings. *Journal of Information Science*, 42(3), 334–343.
- Kumar, R. S., Dash, S., & Purwar, P. C. (2013). The nature and antecedents of brand equity and its dimensions. *Marketing Intelligence and Planning*, 31(2), 141–159. <https://doi.org/10.1108/02634501311312044>
- Lappeman, J., Clark, R., Evans, J., & Sierra-Rubia, L. (2020). The effect of nWOM firestorms on South African retail banking. *International Journal of Bank Marketing*, 39(3), 455–477. <https://doi.org/10.1108/IJBM-07-2020-0403>
- Lassar, W., Mittal, B., & Sharma, A. (1995). *Measuring customer-based brand equity*. 12(4), 11–19.
- Le, L. T., Tran, L. T. T., Pham, L. M. T., & Tran, D. T. D. (2018). A revised model of E-brand equity and its application to high technology products. *Journal of High Technology Management Research*, 29(2), 151–160. <https://doi.org/10.1016/j.hitech.2018.09.005>
- Maio Mackay, M. (2001a). Application of brand equity measures in service markets. *Journal of Services Marketing*, 15(3), 210–221. <https://doi.org/10.1108/08876040110392489>
- Maio Mackay, M. (2001b). Evaluation of brand equity measures: Further empirical results. *Journal of Product & Brand Management*, 10(1), 38–51. <https://doi.org/10.1108/10610420110382812>
- Miltgen, C. L., Cases, A.-S., & Russell, C. A. (2019). Consumers' responses to Facebook advertising across PCs and mobile phones. *Journal of Advertising Research*, 59(4), 414–432. <https://doi.org/10.2501/jar-2019-029>
- Newton, S., & Ragel, V. (2017). The effectiveness of relational bonds on customer loyalty mediated with customer satisfaction: Telecommunication industry, Batticaloa. *Asian Journal of Economics, Business and Accounting*, 4(3), 1–11. <https://doi.org/10.9734/ajeba/2017/36550>.
- Nogueira, E., & Tsunoda, D. F. (2018). A proposed model for consumer-based brand equity analysis on social media using data mining and social network analysis. *Journal of Relationship Marketing*, 17(2), 95–117. <https://doi.org/10.1080/15332667.2018.1440141>
- Pappu, R., & Quester, P. (2006). Does customer satisfaction lead to improved brand equity An empirical examination of two categories of retail brands. *Journal of Product & Brand Management*, 15(1), 4–14. <https://doi.org/10.1108/10610420610650837>

- Pathak, X., & Pathak-Shelat, M. (2017). Sentiment analysis of virtual brand communities for effective tribal marketing. *Journal of Research in Interactive Marketing*, 11(1), 16–38. <https://doi.org/10.1108/JRIM-09-2015-0069>
- Raji, R. A., Rashid, S., & Ishak, S. (2019). The mediating effect of brand image on the relationships between social media advertising content, sales promotion content and behaviuoral intention. *Journal of Research in Interactive Marketing*, 13(3), 302–330. <https://doi.org/10.1108/JRIM-01-2018-0004>
- Rambocas, M., & Pacheco, B. G. (2018). Online sentiment analysis in marketing research: a review. *Journal of Research in Interactive Marketing*, 12(2), 146–163. <https://doi.org/10.1108/JRIM-05-2017-0030>
- Rehman, F. U., Ilyas, M., Nawaz, T., & Hyder, S. (2014). How Facebook advertising affects buying behavior of young consumers: The moderating role of gender. *Academic Research International*, 5(4), 395-404.
- Sadyk, D. (2020). Conceptualization of social media brand equity. *Press Academia Procedia*, 11(1), 84-87.
- Sailunaz, K., & Alhajj, R. (2019). Emotion and sentiment analysis from Twitter text. *Journal of Computational Science*, 36, 101003. <https://doi.org/10.1016/j.jocs.2019.05.009>
- Sharma, R. B., & Sahni, M. M. (2015). Evaluating the efficacy of Facebook communities & Twitter tweets on brand equity: An empirical study on fashion brands. *Advances in Economics and Business Management*, 2(5), 503–508.
- Tian, X., He, W., & Wang, F. K. (2021). Applying sentiment analytics to examine social media crises: a case study of United Airline's crisis in 2017. *Data Technologies and Applications*, 56(1), 1-23.
- Trivedi, S. K., & Singh, A. (2021). Twitter sentiment analysis of app based online food delivery companies. *Global Knowledge, Memory and Communication* (ahead-of-print). <https://doi.org/10.1108/gkmc-04-2020-0056>
- Van den Broeck, E., Poels, K., & Walrave, M. (2020). How do users evaluate personalized Facebook advertising? An analysis of consumer- and advertiser controlled factors. *Qualitative Market Research*, 23(2), 309–327. <https://doi.org/10.1108/QMR-10-2018-0125>.
- Vinh, T. T., Phuong, T. T. K., Nga, V. T. Q., & Nguyen, N. P. (2019). The effect of social media communication on brand equity through Facebook: Evidence from CGV Cinemas, Vietnam. *International Journal of Electronic Customer Relationship Management*, 12(2), 143–166. <https://doi.org/10.1504/IJECRM.2019.104021>
- Wiese, M., Martínez-Climent, C., & Botella-Carrubi, D. (2020). A framework for Facebook advertising effectiveness: A behavioral perspective. *Journal of Business Research*, 109, 76-87.

Yu, C. E., & Zhang, X. (2020). The embedded feelings in local gastronomy: A sentiment analysis of online reviews. *Journal of Hospitality and Tourism Technology*, 11(3), 461–478. <https://doi.org/10.1108/JHTT-02-2019-0028>

Yue, L., Chen, W., Li, X., Zuo, W., & Yin, M. (2019). A survey of sentiment analysis in social media. *Knowledge and Information Systems*, 60(2), 617–663. <https://doi.org/10.1007/s10115-018-1236-4>