

Impact of Advertisements on Philippine Financial Service Firms' Stock Returns

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A growing interest in marketing literature has been on establishing the impact of advertising on stock value. This study illustrates the impact of advertising and celebrity endorsements on daily stock returns among publicly listed banks and other financial service firms in the Philippines. Print advertisements published in 2016 in two major broadsheets are archived and coded on the presence or absence of advertisements and celebrity endorsements. Findings show that the presence of advertisements has a marginally significant positive effect on daily stock returns one trading day after the appearance of the advertisement, while the presence of celebrity endorsements has none. The signaling-and-spillover function of advertising is used to theoretically explain the associated effect on stock price – investors perceive the company's prospective performance based on the heuristics of advertisements.

Keywords: Advertising effects, celebrity endorsements, stock return, financial sector, Philippines

1 Introduction

Advertising efforts among banks and other financial service brands are often seen to gear awareness, interest, and action among target customers. However, recent research also acknowledges the role of advertising, among other marketing efforts, and its elements in signaling the potential value of the company (Srinivasan & Hanssens, 2009).

As early as 1994 (p. 13), research on the amount of attribution of stock returns caused by advertising was explored by Bobinski and Ramirez through financial-relations advertising. More recently, Fehle, Tsyplakov, and Zdorovtsov (2005) investigated the influence of Super Bowl commercials on stock returns. Meanwhile, Vitorino (2013, p. 227) devised a dynamic investment-based model illustrating the impact of advertising expenditures leading to stock returns and firm value. It was also proven that advertising might be associated with larger stock return in the year than in the subsequent year of the advertising episode (Chemmanur & Yan, 2019). In a more recent paper, Liaukonyte and Zaldokas (2018) used minute-by-minute TV advertising and its real-time effects on trading activity. Several types of research considered the impact of advertising on stock value (e.g., Barigozzi & Peitz, 2004; Hsu, 2017; Joshi & Hanssens, 2009; Puspitaningtyas, 2019). Moreover, the elements in advertising materials, such as messages and messengers, were studied by researchers to connect these elements' impact on stock value such as pricing information (e.g., Barigozzi & Peitz, 2004) and comparative advertisements (Hsu, 2017).

Corollary to the effect of advertisements, celebrity endorsement as a communication tool was also subjected to the scrutiny of recent research investigating its effects on stock value. However, compared to the emerging general finding on advertisements' effects on stock value, the findings on the role of celebrity endorsements on stock valuation were inconclusive.

Elberse and Verleun (2012) showed that there was a positive payoff when employing endorsers to brands in terms of stock-return effects in the United States. A study done by Agnihotri and Bhattacharya (2018, p. 65) in India also showed a similar positive effect. However, such an effect was conditional to endorsement announcement specificity, the reputation of celebrity endorsers, and origin of the brand. Similarly, Russell, Mahar, and Drewniak (2005) showed a conditional effect of publicity of athletic endorsers on stock prices. On a similar note, negative celebrity publicity also influenced stock returns (Hock, 2015). While there were a few studies showing positive effects of celebrity endorsements, others were conditional or inconclusive. Farrell, Karels, and McClatchey (2000) did not find any relationship between Tiger Woods' tournament placement and the brands he

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endorsed. Also, Chaddha, Agarwal, and Zareen (2018) did not find a significant connection between celebrity endorsements and stock value in the banking sector in India.

In the Philippines, advertising of banks and other financial institutions has experienced a surge of mainstreaming in recent years. According to Montecillo (2015), financial service brands have become attuned to the practice of putting resources on advertising in the main media channels, such as television (TV), print, and social media. Celebrity endorsements have also flocked the financial service brands in recent years (eCompareMo, 2016). Table 1 lists down the brands and their celebrity endorsers in recent years.

Table 1. Financial Brands and Celebrity Endorsements in Recent Years

Bank and Financial Services Brand	Celebrity Endorser
PNB	Dingdong Dantes, Marian Rivera, James Reid, Nadine Lustre
BDO	Piolo Pascual, Sarah Geronimo, Maine Mendoza, Xian Lim, Richard Yap, Pia Wurtzbach, Catriona Gray
Security Bank	Megan Young
RCBC	Georgina Wilson, Isabella Daza, Solenn Heussaff, Liz Uy
EastWest	Manny Pacquiao
Sterling Bank	Chris Tiu
PS Bank	Anne Curtis, John Lloyd Cruz
Metrobank	Liza Soberano
BPI	Wally Bayola
SunLife	Charo Santos, Matteo Guidicelli, Judy Ann Santos, Piolo Pascual
Manulife	Richard Yap, Sarah Geronimo
Insular Life	Lea Salonga
PruLife	Liza Soberano, Kim Atienza, Gretchen Ho, Zoren Legaspi
FWD	Marcio Lassiter

Sources: Montecillo, 2015, eCompareMo, 2016, and brand websites

This research explores the potential impact of advertising and celebrity endorsements of financial service brands, as measured through daily stock returns. This study's significance points out the role of advertising, its elements, and the resources in creating value both from the consumers and investors. As with the past research attributing advertising to stock value, it is important for marketing managers and strategic decision-makers to understand whether any increase in economic returns justify the costs of advertising, as well as celebrity endorsements as a tool.

This paper aims to contribute to the literature in the Philippine setting wherein advertisements and celebrity endorsement tactics are scrutinized in terms of firm valuation and, consequently, economic returns. Theoretically, studying advertising effects on the retail investment behavior can provide alternative explanations on how investors react to advertising materials as attention-getting and reputation-building marketing outputs. Moreover, this paper extends scrutiny beyond advertising – celebrity endorsement effects towards consumers – and shifts the lens towards the signaling and spillover effects from the perspective of the capital market. Practically, the findings of this research inform economic return affecting stock value that eventually accrues to the investor with the cues construed from the firms' advertisements. Therefore, value maximization is also studied in light of advertising effects towards profitability determination, as well as the notion of the dual nature of consumers as investors (Keloharju et al., 2012). Signaling and spillover effects can substantially influence such effects in the context of stock valuation.

This paper scopes a sample of advertisements obtained from major broadsheets in the Philippines covering a few months of 2016 as part of the representative materials. The findings are therefore limited to the sample, as well as the service category of banks and financial services geared towards consumers (financial retail), and the medium of advertisements.

2 Theoretical Review

The signaling and spillover effects are the mechanisms proposed by the recent literature investigating the impact of advertising on firm value as an unintended effect of advertising.

The signaling effect, on the one hand, means that advertising in different forms can serve as a signal of future earnings potential (Joshi & Hanssens, 2009). Chauvin and Hirschey (1993) have also argued that advertising can appear to help investors form expectations on the potential cash flows of the firm. Advertising may also be providing information that is over and above the impact of sales or revenues and that has a direct effect on its stock price (Joshi & Hanssens, 2009).

The concept of signaling comes from contract theory¹ wherein a party communicates information pertaining to itself towards another party, such as in a principal-agent relationship. The original context of signaling has been observed in knowledge gaps between organizations and prospective employees. Because of the main idea behind this concept, signaling then has been adapted by other areas in business such as finance and marketing.

Signaling captures the basic idea that asymmetric information (a deviation from perfect information) relates to some economic transactions wherein inequalities exist in the normal market for the exchange of goods and services (Spence, 2002).

The signaling process involves communication elements such as the signaler, signal, receiver, and feedback. As signaling involves primarily informational aspects of market structures, the notion of *quality*, being an underlying and unobservable ability of the signaler (e.g., firms) to fulfill the needs or demands of an outsider observing the signal, is a crucial element of the process (Connelly, Certo, Ireland, & Reutzel, 2011). The notion of quality is shared by the ideas of prestige (Certo, 2003) and reputation (Kreps & Wilson, 1982).

In this paper, signaling helps explain the behavior of the market (i.e., investors) – the receiver processes the signal through *quality* as an inherent effect of advertisements, projecting reputation, prestige, and other implicit cues on a firm's performance.

The spillover effect, on the other hand, refers to the function of advertising to build stronger brand equity (Joshi, 2009) compared to competitors, in the eyes of the investors. The typical intent of advertising is to promote brands to influence customer behavior, but a “spillover effect towards investors” behaviors can also happen. For example, Frieder and Subrahmanyam (2005) find out that traders favor stocks with stronger brand names, even though these brands do not incur short-run returns.

Apart from a common intention of the advertisements, such as creating awareness and building loyalty, the spillover effects towards other audience types may come in the form of construal of asymmetric information that suggests performance. Thus, investors as a secondary audience may form market beliefs towards the firms via the advertisements.

3 Literature Review and Hypotheses

3.1 Advertising, Stock Value, and Advertising on Financial Services Marketing

Because of the direct intention of advertising as a marketing tool in informing, persuading, and reminding, it is uncommon to view advertising as a cue for stock value and the changes that surround it. However, recent research has established that advertising (e.g., expenditure, messaging) has a peripheral effect on stock value (e.g., Liaukonyte & Zaldokas, 2018).

As early as 1994 (p. 13), research on the amount of attribution of stock returns caused by advertising was explored by Bobinski and Ramirez through a financial-relations advertising. They used a time-series approach to study the effect of such advertising on stock trading volume and stock price. Their main finding showed increases during the initial appearance of a financial-relations advertisement but not during the subsequent appearances of the advertisement. The trend occurred only among small capitalized firms.

¹ Contract theory explores contractual arrangements in the presence of information asymmetry (Holmstrom & Milgrom, 1991).

Similarly, Joshi and Hanssens (2010, p. 20) also found support in the hypothesis that advertising had a direct effect on valuation over and above the indirect path of advertising to stocks through sales revenue and profit response. They argued the signaling and spillover effects as mechanisms of this direct effect of advertising on stock valuation.

Moreover, Bentley (2015) also suggested that advertising spending had a positive, long-term impact on a firm's market capitalization, and conversely a negative impact on competitors' valuation. Kim and Morris (2003) also examined Super Bowl advertisement effects on stock price performance and found an abnormal stock return pattern during the Super Bowl.

Fehle, Tsyplakov, and Zdorovtsov's (2005, p. 628) study investigated the influence of Super Bowl commercials on stock returns. This natural experiment investigated price reactions and trading activity for firms employing TV commercials in 19 Super Bowl broadcasts from 1969 to 2001 (Fehle, et.al., 2005, p. 625). They found significant positive abnormal returns which were identified with the advertisements' contents, citing the presence of mood and attention effects among investors (Fehle et al., 2005, p. 625).

Meanwhile, Vitorino (2013, p. 227) devised a dynamic investment-based model illustrating the impact of advertising expenditures leading to stock returns and firm value. It was also proven that advertising might be associated with larger stock returns in the year of the advertising episode, rather than in the subsequent year (Chemmanur & Yan, 2019).

In a more recent paper, Liaukonyte and Zaldokas (2018) explored minute-by-minute effect of TV advertising on investor search for online financial information and subsequent trading activity. Their study covered around 300 firms, 327,000 advertisements, and US\$20 billion in advertising spending. Their findings showed that, on average, TV advertisements led to a three percent increase in Securities and Exchange Commission electronic data gathering, analysis, and retrieval queries and an eight percent increase in Google searches within 15 minutes of the airing of the advertisement. These searches for financial information then translated into larger trading volumes.

Joshi and Hanssens (2009, p. 239), meanwhile, analyzed how single movie releases of movie studios affect the studio's profitability through the post-launch stock price predicting the direction and magnitude of excess returns based on revenue expectations for a movie release. Their main finding showed a relationship between the marketing support for a movie and the excess stock return post-launch; movies with above-average pre-launch advertising had lower post-launch stock returns than movies with below-average marketing support.

Moreover, the elements in advertising materials, such as messages and messengers, are starting to get attention among researchers in connecting them to the impact on stock value, such as pricing information (e.g., Barigozzi & Peitz, 2004) and comparative advertisements (Hsu, 2017).

Among the categories of products and services, banking, as well as the general financial services domain, typically relies on word-of-mouth and on-the-ground reputational building and loyalty (Cengiz, Ayyidiz, & Er, 2007). However, as the sector becomes competitive, attention and interest turned premium as well to capture leads and maintain connections with customers (Metwally, 1997).

Brand preference and loyalty are enhanced by advertising among banks (Amoako, Anabila, Effah, & Kumi, 2017). Studies have shown that advertising significantly influences trust, commitment, and customer behavioral loyalty among customers (Liang & Wen-Hung, 2004), as well as customer satisfaction (Hameed, 2013). Advertising efficiency and bank image influence customer loyalty as seen in a study done in Turkey (Cengiz, Ayyildiz, & Er, 2007). However, according to Honka, Hortacsu, and Vitorino (2017), awareness is a function of bank advertising. Bank advertising is primarily a shifter of awareness as opposed to consideration or choice (Honka, 2017, p. 611).

Bank and financial service advertisements also substantially influence investors through informational and transformational advertising strategies (Lee, 2011). Similarly, Acar and Temiz (2017, p. 656) also determine that there is a positive association between advertising expenses and financial performance in the banking sector citing attributions to "future economic benefits" for investors' asset recognition.

Based on the arguments suggested by related literature on the role of advertisements on stock value as well as the mechanisms offered towards the advertising of financial services, the first hypothesis is formulated as follows:

H1: The presence of advertisements has a significant impact on financial service firms' stock returns

3.2 Celebrity Endorsement and Stock Value, and Celebrity Endorsement on Financial Services Marketing

Recent research constructed models and illustrated how celebrity endorsements were influencing the value of a firm. Agrawal and Kamakura (1995) conducted an event analysis evaluating the profitability of celebrity endorsement contracts in the United States by analyzing firms' expected stock/accounting returns. A total of 110 celebrity endorsement contracts were analyzed and indicated a positive impact. They suggested that celebrity endorsements were a worthwhile investment in advertising.

Ding, Molchanov, and Stork (2011) also analyzed a sample of 101 celebrity endorsement announcements made on the internet between 1996 and 2008 by firms listed in the United States. Their findings were consistent with that of Agrawal and Kamakura (1995, p. 60) that there were incremental benefits from celebrity endorsements closely matching the incremental costs from contracts.

Elberse and Verleun's (2012) study done in the United States showed that employing athletes as endorsers translated positively in terms of stock-return effects. They also noted that sales and stock returns jumped noticeably when there were major achievements by the athletes. Also, in athlete celebrity endorsements, Russell, Mahar, and Drewniak (2005) examined the market's response to news events that affected athletic endorsers. They showed that stock prices were sensitive to events surrounding the athlete endorsers. Stock market participants expected events that improved the endorser's image to lead to future cash flows for the sponsoring firm.

Agnihotri and Bhattacharya (2018, p. 65) examined determinants of positive abnormal stock returns from 149 endorsement news events from 2003 to 2014. Their findings also showed a similar positive effect, conditional to endorsement announcement specificity, reputation of celebrity endorsers, and origin of the brand.

On a similar note, negative celebrity publicity also influenced stock returns (Hock, 2015). He examined 59 events covered in a 25-year period from 1988 to 2012 on negative celebrity publicity and the subsequent stock prices.

While there were a few studies that showed positive effects of celebrity endorsements, others were conditional or inconclusive. Farrell, Karels, and McClatchey (2000, p. 1) did not find a relationship between Tiger Woods' tournament placement and some brands he endorsed (e.g., American Express, Titleist). However, there was a positive and significant impact of Tiger's tournament performance on Nike's excess returns (Farrell et al., 2000, p. 1).

Finally, Chaddha et al. (2018) did not find a significant connection between celebrity endorsements and firms' value in the banking sector in India.

Not many studies have focused on the mechanisms of celebrity endorsements in banks and financial services. One study done in India (Agarwal & Zareen, 2018) investigates the impact of celebrity endorsements on consumer attitudes towards the services. Their findings suggest that consumers are highly influenced by celebrity endorsement in their decision towards banking service subscription; however, consumers are more interested in getting more returns and security on their finances.

Mathes (2018) labels celebrity endorsements in the banking sector as "borrowed interest." Celebrities are articulating the brand essence of the banks on their behalf. This can create short-term awareness and interest but may be risky in the long run when brands are attached to a person's image.

Finally, due to the rise of celebrity endorsements in the United States, the country's Securities and Exchange Commission even has published an investor warning (USSEC, 2017, para. 2): "It is never a good idea to make an investment decision just because someone famous says a product or service is a good investment." This is made in view of several celebrities posting about cryptocurrencies on social media.

In sum, the effect of celebrity endorsements directly attributed to investors' behaviors and stock value specifically in the banking sector has been scarce. The second hypothesis is offered:

H2: The presence of celebrity endorser in advertisements has a significant impact on financial service firms' stock returns

4 Methodology

To obtain representative advertisement materials of publicly listed banks and consumer financial services brands, a sample of print advertisements from three months in 2016 was gathered from leading newspapers. Meanwhile, stock price information of these banks and financial institutions was collected from an existing database (i.e., Eikon) in the University of the Philippines (Diliman) Virata School of Business Library.

4.1 Print Advertisement Collection

To obtain representative advertisement materials of publicly listed banks and consumer financial services brands, a sample from print advertisements from two leading broadsheets in the Philippines (*Philippine Daily Inquirer* and *Philippine Star*) were gathered. The collection covered archived broadsheets (in print) stocked in the University of the Philippines (Diliman) Main Library. Three months of coverage in 2016 served as the sampling frame. Advertisements of banks and financial services (such as insurance companies) were photographed for content analysis. Also, the dates of the advertisement appearance were recorded. Then a straightforward coding was done recording whether the advertisement had celebrity or none. A celebrity was defined as a famous personality who enjoys public recognition in any field such as entertainment, sports, broadcast, among others.

The sampling frame was within the randomly sampled months of January, March, and July 2016, covering 82 trading days. The study was able to collect advertisements from six financial services firms that advertised in the covered months. Print advertisements were archived and coded with the presence or absence of celebrity endorsements.

Table 2 summarizes the number of days with print advertisements and the presence of celebrity endorsements over the study period.

Table 2. Number of Days with Print Advertisements and Celebrity Endorsements

Firm	Number of Days	
	Print Advertisements	Celebrity Endorsements
BDO Unibank, Inc.	41	8
Manulife Financial Corporation	4	3
Metropolitan Bank & Trust Company	53	3
Philippine National Bank	22	4
Security Bank Corporation	9	2
Sun Life Financial Inc.	5	4
Total Number of Days with Presence of Advertisements	134	24

4.2 Stock Price Record Collection

Stock price data were collected from the database accessible in the library of the University of the Philippines (i.e., Thomson Reuters Eikon). The 2016 daily closing stock prices of the select listed banks and financial companies were collated.

4.3 Econometric Model

4.3.1 Dependent Variable, R_{it}

The daily stock price return of each firm was used as the dependent variable to determine whether abnormal returns resulted from the use of celebrity endorsements. The return was computed as follows:

$$R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}} \quad (1)$$

where R_{it} is firm i return for date t ,
 P_{it} is closing price of firm i at date t , and
 P_{it-1} is closing price of firm i at date $t - 1$.

For dates that fell on a Saturday, Sunday, or a holiday, return for the following trading day was used, as this was the first trading opportunity after the event.

Sales and stock price return were the two financial variables commonly used as dependent variables in studies looking at the effects of celebrity endorsements on firms. However, only few studies studied the effect of celebrity endorsement on sales (Bergkvist & Zhou, 2016). This might be explained by the lack of publicly available real-time information for sales data.

The dependent variable used in this study was the stock’s actual return, R_{it} , which was the capital gain on the trading day which can be a basis of the expected return in the future. Other measures of stock return in the literature included: (i) expected or normal return, which was the level of profit expected by investors in normal conditions; and (ii) abnormal return, which was the difference between expected and actual returns (Puspitaningtyas, 2019).

Following Angeles (2017), this study did not use the standard event study methodology where a normal return was computed and compared with the actual returns at the time of the event. This standard methodology had assumptions rooted in the capital asset pricing model’s validity (Campbell, Lo, & Mackinlay, 1997), which the Philippine stock market might not fairly meet (Aquino, 2006; Yu, 2002).

4.3.2 Independent Variable, E_{it}

The presence of print advertisement and celebrity endorsements (‘event’) was coded as follows:

$$E_{it} = \begin{cases} 0 & \text{if no advertisement on for firm } i \text{ on date } t \\ 1 & \text{if there is an advertisement but no celebrity endorsement on for firm } i \text{ on date } t \\ 2 & \text{if there is an advertisement with celebrity endorsement on for firm } i \text{ on date } t \end{cases} \quad (2)$$

The mere ‘presence’ of advertisements as a key event studied in this paper could be justified by the everyday signaling of firms from the perspective of the investors. As discussed in the review of related studies, other research utilized launches, minute-by-minute advertisement and real-time trade, press releases, among others.

4.3.3 Control Variables

The following control variables were used in various regression model specifications:

Table 3. Control Variables

Variable	Explanation
Lagged firm returns, R_{it-1}	Lag of firm returns had explanatory power and the Philippine firm stock returns was shown to be autoregressive (Tsouma, 2007). Angeles (2017) also found evidence of this autoregressive behavior.
Philippine Stock Exchange (PSE) index return, R_{it}^{PSE}	Returns were computed using the formula, $R_{it} = \frac{P_{it}-P_{it-1}}{P_{it-1}}$. Broad market portfolio returns were shown to affect individual firm returns (Fama & French, 1992).
PSE Financials index return, R_{it}^{Fin}	Returns were computed using the formula, $R_{it} = \frac{P_{it}-P_{it-1}}{P_{it-1}}$ where P_{it} was the PSE index closing level. Industry sector-specific events and average return might affect individual firm returns (Farrell et al., 2000).
Exchange rate, R_t^{FOREX}	Returns were computed using the formula, $R_{it} = \frac{P_{it}-P_{it-1}}{P_{it-1}}$ where P_{it} was the PSE Financials index closing level. Foreign exchange rate movements might affect firm value both directly and indirectly (Aquino, 2005). For banks and other financial services firms, foreign exchange fluctuations might be more relevant given the significant presence of foreign currency denominated financial assets and liabilities compared to firms in other sectors. Foreign exchange rate change was computed using the formula, $R_t^{FOREX} = \frac{P_{it}-P_{it-1}}{P_{it-1}}$. A positive sign meant a domestic currency appreciation, while a negative sign meant a domestic currency depreciation.

Angeles (2017), in a study using event study methodology in the Philippine context, also used other control variables like stock market interdependence, risk-free rate, and term spread. Farrell et al. (2000), which studied Tiger Wood's performance and endorsement value, used industry return as the only control variable, which is the equally weighted average excess return of all firms in the same four-digit SIC code. Other studies, which focused on celebrity endorsements, used more endorsement-related variables instead of financial market variables. For example, the study in India o Agnihotri and Bhattacharya (2018) used variables such as celebrity endorsement specify, celebrity age, celebrity gender, and celebrity rating.

4.3.4 Model Specification

This study used the following regression model:

$$R_{it} = \alpha + \beta_1 E_{it} + \beta_3 R_{it-1} + \beta_4 R_{it}^{PSE} + \beta_5 R_{it}^{Fin} + \beta_6 R_t^{FOREX} + \varepsilon_{it} \quad (3)$$

Abnormal returns existed when β_1 coefficient was statistically significant (Binder, 1998).

5 Results and Discussion

Table 4 presents the descriptive statistics of the variables in the model.

Table 4. Descriptive Statistics of Variables

Variables	N	Mean	Standard Deviation	Minimum	Maximum
Return, R_{it}	357	0.0005	0.0615	-0.8946	0.6757
Event, E_{it} , with advertisement	393	0.3420	0.4750	0	1
Event, E_{it} , with celebrity	393	0.0611	0.2398	0	1
PSE index return, R_{it}^{PSE}	392	-0.0012	0.0144	-0.0437	0.0364
PSE Financials index return, R_{it}^{Fin}	392	-0.0003	0.0108	-0.0339	0.0402
Exchange rate, R_t^{FOREX}	392	0.0002	0.0025	-0.0054	0.0082
Lagged firm returns, R_{it-1}	331	0.0011	0.0157	-0.0726	0.0825

With the $t+1$ lag in the event analysis, the mean for the event with advertisement is 0.342, meaning that around 34% of the events has advertisements. Meanwhile, only around six percent of the sample has celebrities on them. In the collected event sample, the average computed return is 0.0005, or 0.05% daily return.

Table 5 shows the correlation coefficients among the variables in the current study.

Table 5. Correlations Table

	1	2	3	4	5	6	7
1. Return, R_{it}	1						
2. Event, E_{it} , with advertisement	0.0505 (0.3463)	1					
3. Event, E_{it} , with celebrity	-0.0017 (0.9748)	0.3572* (0.000)	1				
4. PSE index return, R_{it}^{PSE}	0.0351 (0.5088)	0.0142 (0.7818)	0.0506 (0.3174)	1			
5. PSE Financials index return, R_{it}^{Fin}	0.1237* (0.0196)	0.0009 (0.9859)	0.0512 (0.3124)	0.8928* (0.0000)	1		
6. Exchange rate, R_t^{FOREX}	-0.0475 (0.3718)	0.0316 (0.5368)	0.0335 (0.5079)	0.0087 (0.8629)	-0.0804 (0.1119)	1	
7. Lagged firm returns, R_{it-1}	0.0109 (0.8438)	-0.028 (0.6154)	-0.0127 (0.8177)	0.2515* (0.0000)	0.2282* (0.0000)	0.0234 (0.6716)	1

* significant at $p < .05$ level

Events with advertisements are significantly positively correlated with events with celebrities. Also, the PSE Financials index returns are significantly positively correlated with the PSE index returns. Lagged firm returns are significantly positively correlated with the PSE index return and the PSE Financial index returns. These correlations are expected.

Through a step-wise regression technique, four models are derived to predict returns: Model 1 with control variables; Model 2 with control variables and events with advertisements; Model 3 with control variables and events with celebrities; and Model 4, full model, with control variables and events with advertisements and with celebrities. Table 6 shows the specifications of these models.

Table 6. Regression Results

	Model 1	Model 2	Model 3	Model 4
Event, E_{it}				
With advertisement		0.004 (0.243)		0.006* (0.094)
With celebrity			-0.004 (0.605)	-0.006 (0.131)
PSE index return, R_{it}^{PSE}	-1.784 0.103	-0.900 0.199	-1.798 (0.101)	-0.914 (0.194)
PSE Financials index return, R_{it}^{Fin}	2.780* 0.069	2.250 0.141	2.817 (0.068)	2.283 (0.137)
Exchange rate, R_t^{FOREX}	-0.312 0.386	-0.409 0.302	-0.224 (0.523)	-0.366 (0.370)
Lagged firm returns, R_{it-1}	0.006 0.957	-0.084 0.350	0.006 (0.954)	-0.086 (0.352)
Constant	-0.002 0.713	0.001 (0.313)	-0.001 (0.814)	0.001 (0.331)
N	328	328	328	321

Note: * p<.10, with p-values in parentheses. For Models 2, 3, and 4, base category is no advertisement on time= t .

As for Model 1, only the PSE Financial index return is significant and positive in the model predicting returns. Models 2 and 3 do not show any significant coefficient.

Model 4, which provides a full model with the two events under scrutiny and the proposed control variables, shows a marginally significant coefficient for the presence of advertising, positively contributing to stock return ($B=0.006$, $p=0.094$). Model 4 shows that at the 10% level of significance, having print advertisements has a positive effect on daily stock price return, one day after the advertisement. The results support the signaling effect of advertisements.

In all model specifications, there is no conclusive result as to the effect of celebrity endorsements on daily stock price return. Also, in terms of celebrity endorsement as a cue, the results show no conclusive figures. All control variables are not significant in Model 4.

It is important to note that the findings are showing coefficients of the presence of advertisements for stock returns one trading day after the publication of the advertisement. This consideration allows readership and exposure of the advertisements to happen among the reader-investors. The time lag can be close to Liaukonyte and Zaldokas (2018) real-time effect of advertisements on stock traders' behaviors and effects on stock volume and amount.

6 Conclusion and Future Research

This study shows that advertising incrementally impacts stock returns in the financial services sector. The data cover six publicly listed financial firm brands over a three-month period for a total of 134 presence of advertisements within these months. Findings show that advertising's presence

significantly contributes to 0.6 percentage points to a stock's daily return in a one-day lag of advertising publication. Meanwhile, the employment of celebrity endorsements has no effect.

Banks and financial services anchor on the marketing operative ideas of trust, commitment, and reliability, among others. Through the advertising cues provided by the firms, the customers can feel a sense of reassurance and reputability as effects of media mainstreaming. Apart from awareness, bank and financial firm advertisements can also relay layers of effects for other audiences such as investors.

As discussed in the studies (e.g., Kihlstrom & Riordan, 1984) that explore advertising's influence on stock value, the signaling function of advertisements among banks and financial firms work towards investors' vicarious awareness through the salience of brands in everyday media. Previous research has shown that investors searched more about the company immediately after hearing about it in the background. This mechanism may have worked as well in this research context. Also, the spillover effect may have caused speculations about future potential cash flow and other indicative effects of advertisements on the firm's value.

As for celebrity endorsements, although the present study is inconclusive, the main purpose of celebrity ambassadorship may have been directed towards customers' awareness as Honka, Hortacsu, and Vitorino (2017) point out. Investors may have speculated as well that such promotional tactic does not substantially translate to return.

Theoretically, this paper contributes to the emerging stock market-based analysis of advertisements and celebrity endorsement and their economic worth. The signaling-and-spillover functions are utilized as theoretical anchors. Practically, the findings of the current study can inform firms on their decisions towards marketing communication tactics, such as mainstream advertisements and corollary celebrity strategy, in bringing up further value apart from demand creation, such as firm valuation. Also, investors may learn from the signaling and spillover effects of advertisements that provide cues for valuation.

Given the limited data sample, industry category, coverage in terms of time, as well as exhaustive advertising scanning, future research in the Philippines can further investigate the connection between advertising and stock return. First, the coverage may be increased in months or even years. Second, other industries with publicly listed firms can be considered, especially those that cater directly to consumers, so that the presence of advertisements is warranted. Third, future research may consider archiving and encoding advertisements from other mainstream channels, such as TV, radio, and popular social media. Fourth, further characterization of the advertisements (e.g., types of messages, timing, and framing) and celebrity endorsements (e.g., types of celebrities, general reputation of the celebrity, perceived status of the brand-celebrity collaboration, etc.) can provide conditional effects to stock value performance.

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