



Article

Brand and Firm Value: Evidence from Arab Emerging Markets

Musaab Mousa ¹, Judit Sági ^{2,*}  and Zoltán Zéman ³ 

¹ Doctoral School of Economic and Regional Sciences, Szent István University, Páter Károly u. 1, 2100 Gödöllő, Hungary; musaab.mousa@phd.uni-szie.hu

² Faculty of Finance and Accountancy, Department of Finance, Budapest Business School, Buzogány u. 10-12, 1149 Budapest, Hungary

³ Faculty of Economic and Social Sciences, Szent István University, Páter Károly u. 1, 2100 Gödöllő, Hungary; zeman.zoltan@gtk.szie.hu

* Correspondence: sagi.judit@uni-bge.hu; Tel.: +36-302-211-408

Abstract: This study aims to estimate the impact of brand as the most important intangible marketing asset on firm value, measured by share return in some Arab emerging market, as well analyze the moderating role of agency costs in the relationship between share return and brand. We use the Ohlson model of valuation with a sample of the most traded companies on four markets under study. The panel data regression results show a significant impact of brand on return as well as agency costs that promote the valuation model power, meaning that good corporate governance increases the degree of marketing investment efficiency in value creation. Our findings support the literature relating to the residual earnings valuation model. Furthermore, the results confirm the informative content of marketing application besides the traditional accounting figures as a promising approach for firm valuation.

Keywords: brand equity; share return; agency costs; Ohlson model



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1. Introduction

Research efforts are still underway to solve the value puzzle in the capital market as well as to determine the explanatory factors affecting share return. More than 300 factors have been identified (Pham et al. 2018). On the other hand, the relationship between accounting profit and return on equity is less significant because it turns a blind eye to some important variables such as marketing (Lev and Zarowin 1999). In the same context, a new research trend has been towards linking marketing applications to improving the company's market values within the marketing–finance interface framework, which has added new dimensions to marketing strategies to include the investor as one of the key stakeholders, as well as considering the value of the company as a main objective of these strategies. In other words, to bridge the gap between marketing and financial decisions within the firm (Singh et al. 2005; Hanssens and Pauwels 2016). Likewise, Srivastava et al. (1998) pointed out the role of brand equity in creating value for shareholders by influencing cash flows. Corporate valuation models that explicitly include assessment of firm capabilities indicate that the marketing capabilities of the owner-managers, alongside their efforts to improve the brand value of their company, matter a lot (Littunen 2000). Consequently, two channels have been defined for the impact on firm value, the first being the indirect influence of tangible assets through increased revenues, and the second being the channel of direct influence through intangible marketing assets. Laghi et al. (2020) developed market and accounting multiples for the purpose of estimating the value of brands, for assessing the (intangible) relational capital. Inherently, marketing assets create competitive resources that increase the possibility of sustainable growth and surplus performance in the long-term (Rust et al. 2004).

Brand as a substantial intangible asset has attracted extensive research to elucidate the financial consequences on shareholders' value as the original goal of companies

(Aaker 1996) through expediting cash flow, which in turn raises the revenue of tangible assets (Bank et al. 2020). This suggests brand value contribution at 20% of the S&P 500 market capitalization (Ocean Tomo 2017). The financial statements of Apple corporation show \$933 million in advertising expenses, but the corresponding asset for these costs is the brand value of \$87.1 billion (Badenhausen 2012).

In order to identify the sustainable impact of brand, several financial variables related to the company's valuation approaches were studied, such as stock return, market value, market risk, and Tobin's Q ratio, which led to formulating several models of the complementary relationship between the two variables (Bank et al. 2020). Basically, if the market value of the company significantly exceeds the replacement value of its tangible assets, there is a high perceived value for its immaterial assets, such as a brand (Suleimankadieva et al. 2019).

Following the path of relative studies using an interdisciplinary methodology, the current study adds new evidence of the role of brand in firm value in emerging markets, unlike the vast majority of previous studies conducted in developed markets. The Middle East region has not been addressed in such research. Furthermore, the moderating effect of agency cost was analyzed to explore individual differences resulting from the level of decision governance. Therefore, this study contributes to the theoretical literature of the investor response to intangible marketing assets in the framework of the marketing–finance interface, using a proposed valuation model. Thus, it involves brand relevance information along with some accounting indicators.

The paper is structured as follows: the second section presents the theoretical background of brand aspects and relevant literature of the brand–firm value relationship. Section 3 involves the research data and adopted methodology, while the empirical results are displayed and discussed in Section 4. The final section offers some conclusions.

2. Literature Review

2.1. Brand–Share Return Relationship

Despite the pivotal position of the brand in marketing concepts, brand equity measuring as a concept is still among the tasks on the researchers' agenda (Oliveira et al. 2018). It is still not clear how to identify the borders between brand connected concepts, for instance, brand equity and brand value are still used synonymously (El Zein et al. 2019). Brand equity refers to the financial value created from customer reaction to the brand marketing. It involves three concepts: a group of intellectual associations, the higher price compared with rivals, and the share price premium (Anderson 2011). Further brand equity produces two complementary components. First, the brand's strength, which indicates sustainable competitive advantage resulting from an interactive relationship with stakeholders. Second, the brand value, which is the financial outputs measured by profit and cash flow improvements and risk reduction through a variety of marketing actions (Srivastava and Shocker 1991). Basically, the role of brand on performance is evident from the customer as a focal point of a company's activities, aimed at attracting new clients and maintaining a long-term relationship with existing ones. Thus, achieving a competitive position allows a greater profit margin. In other words, product added value results from a customer response, which in turn creates his loyalty (Bank et al. 2020).

Brand equity valuation has become one of the most important issues in financial research owing to the strategic function of brand value by ensuring the efficient allocation of resources to maximize the value, particularly by directing marketing spending towards the optimal brand portfolio that goes beyond the customer side to firm value effect (Abratt and Bick 2003). Therefore, many approaches and models have been developed in the brand equity valuation arena on both a customer and financial basis by researchers (Aaker 1996; Keller 2001; Tasci 2020) or by consultancy companies such as Brand Finance, Interbrand, Millward Brown, and Forbes that issue periodical rankings of firms' brand values around the world.

In the context of the capital market, the extent to which intangible assets like brand equity are reflected in firm value depends on the market efficiency level (Zimmermannová 2020), and thus their reported number in the published financial statements (Chan et al. 2001). Therefore, scholars asserted a significant link between brand equity and future firm value (Aaker 1996). Consequently, several researches used asset-pricing models such as CAPM (Capital Asset Pricing Model) of Fama and French (1993), and Carhart's momentum four-factor models (1997) to manifest the role of brand in boosting share return or associated risk reduction. A set of related studies are presented in Table 1.

Table 1. Some related studies of the brand–firm value relationship.

Paper	Market Scope	Methodology	Moderating Variables
Fehle et al. (2005)	Developed market—USA	CAPM three-factor and momentum four-factor	No
Kirk et al. (2013)	Developed market—USA	Cross-sectional regression	Firm type
Luo (2008)	Three developed markets: USA, UK, and Germany	CAPM three-factor and momentum four-factor	NO
Johansson et al. (2012)	Developed market USA	CAPM three-factor	NO
Billet et al. (2014)	Developed market USA	CAPM three-factor	NO
Bharadwaj et al. (2011)	Developed market USA	CAPM three-factor	Changes in industry concentration
Oliveira et al. (2018)	Five emerging markets in Latin America	CAPM three-factor and momentum four-factor	NO
Wang and Jiang (2019)	Emerging Market—China	CAPM three-factor	Financial analysts' recommendations
Bank et al. (2020)	Emerging market—Turkey	CAPM three-factor	NO
Current paper	Four Emerging Arab markets	Ohlson model	Agency costs

Source: own.

Companies with high brand capital investment have a higher mean of returns than companies with less brand capital investment. Companies with greater brand investment per employee gain higher returns (Belo et al. 2014). Furthermore, using Carhart's four-factor model, Madden et al. (2006) inferred that Interbrand's most valuable brand portfolio has a higher return and lower risk compared with other listed companies' portfolios. This was confirmed by Fehle et al. (2005) when high brand value portfolio performance portfolios were compared with low brand value portfolios. With the same logic, brand familiarity in the product market extends to the capital market. Billet et al. (2014) showed that the most popular brand portfolio has a higher market-to-book level in the three-factor CAPM model by dividing listed companies into some portfolios based on client prospects for 1200 brands. In relation to brand value announcements, abnormal returns are driven by the announcement due to investors' convocation about the highly valued brand ability to mitigate the company's susceptibility to the consequences of cash flow fluctuations (Dutordoir et al. 2015). The same applies to changes in brand quality that influence shareholders' equity through a positive impact on returns and negative impact on both systemic and idiosyncratic risk. For instance, a positive impact can be reached when employees' commitment and customer loyalty are accelerated by open innovation (Krajcsák 2020).

This impact is most pronounced in high competition industries measured by concentration degree (Bharadwaj et al. 2011). In contrast, Johansson et al. (2012) concluded that valuable brand portfolios based on the EquiTrend ranking performed better than the market during the subprime crisis in 2008 using three-factor CAPM. There is no notable impact within valuable brand firms of Interbrand portfolios because of the measure variation used by two rankings.

From an emerging market perspective, Oliveira et al. (2018) compared the performance of high brand values listed on five Latin America capital markets and included in the Millward Brown report with other listed firms' portfolios. The authors found that investors of valuable brand portfolios enjoy a lower level of investment risk depending on Carhart's four-factor model outputs. In China, the largest emerging market, Wang and Jiang (2019) demonstrated the mediating role of financial analysts' recommendations as the information channel between brand value and sustainable performance of listed firms indicated by an abnormal return and risk level in the CAPM three-factor model. In this case, the analysts tended to positively recommend the high value brand shares, especially in highly competitive industries. Likewise, most valuable Turkish brands of listed companies covered by the Brand Finance report are not fully priced on the stock exchange because of high abnormal return and lower risk market level margin (Bank et al. 2020). Based on the literature and to bridge the research gap of brand impact on Arab emerging markets, the first hypothesis was established:

Hypothesis 1 (H1). *The brand equity has a significant impact on share return in Arab markets under study.*

2.2. The Moderating Role of Agency Costs

Agency costs present all costs incurred by the company to ensure that the activities of the agent managers are aligned with the objectives of the principle owners. In other words, the reduction of the negative impact of interests' conflict between the two parties is perfectly applicable to a public listed company where shareholders need to monitor non-owner managers' behavior (Jensen and Meckling 1976; Singh and Davidson 2001; Chandler 2018). Inherently, governance mechanisms aim to minimize unfavorable repercussions of the agency problem, and hence lower agency costs (Huu Nguyen et al. 2020). Because of the purpose of this kind of cost, agency costs connect to firm performance through cash flow channels in two ways. First, a high competition level in the product market leads to lower agency costs, whereas the limited chance to achieve a cash flow surplus compared with competitors pushes shareholders to tighten control over managers' decisions (Mitton 2004; Karuna 2007). Second, agency costs are linked adversely to debt portion in the company financial structure as financial leverage guides managers to serve debt, thus the need for cash flow contributes to more profitable actions by managers. In other words, they are reducing ineffective decisions to invest in cash flow surplus (Cheng and Tzeng 2011). In contrast, several empirical studies investigate the link between agency cost and ownership structure. Ang et al. (2000) pointed out that these costs are lower in the case of managers' ownership or lender banks' significant ownership in small and medium enterprises (SMEs) that confirmed the letter for large companies by Singh and Davidson (2001). Additionally, agency costs increase with high ownership, and vice versa, in the case of state ownership in China's emerging markets (Rashid Khan et al. 2020). In conjunction with agency problems, the literature assays the role of corporate governance factors in their resulted costs with some lower agency costs, such as the duality of the chair-CEO position and institutional members of board, while board size and board independence are related to higher incurred agency costs (Vijayakumaran 2019; McKnight and Charlie 2009; Huu Nguyen et al. 2020).

Through their connection to the decision-making framework of a company, agency costs can be considered as a proxy of governance quality for the maintenance of stakeholders' financial interests, including customers and shareholders, by enhancing the operational functions in the light of efficient control, which is interrelated to the link between intangible

marketing assets and firm value linkage. In this case, the convenient actions of managers led to effective cash flow investment, which in turn elevated the outcomes of marketing investment. Accordingly, the second hypothesis was established:

Hypothesis 2 (H2). *Agency costs moderate the relationship between brand equity and share return.*

3. Data and Methodology

Contrary to the related literature, there is no comprehensive annual brand ranking with an acceptable time series in the Arab Gulf market. According to the Financial Times Stock Exchange (FTSE) classification, four secondary emerging markets were selected (Qatar, Dubai, Abu Dhabi, Kuwait) based on the same economic and social circumstances, as well as the structure of the financial market. The listed companies within the constituents of the FTSE Emerging Index were identified and some specific characteristics were applied to determine the final sample as follows:

1. Company has accounting data for consecutive years between 2010 and 2019.
2. The accounting period ends on 31 December.
3. The company is considered within the FTSE Emerging Index constituents for a minimum of four periods.
4. The book value is positive for all series years.
5. The company has a clear branded product or service, and operates in a competitive market, that is, it does not have an absolute monopoly position.

The final sample includes 36 companies (360 observations) that present more than 50% of trading value in markets in which they are listed, and 3% of the FTSE Emerging Index weight.

Market value is significantly related to the future of a firm from an investor's point of view, depending on many indicators of risk level such as earning, cash flow, and dividends. Undoubtedly, residual earning models have gained wide attention from valuation literature owing to their theoretical added value in connection with the informative content of the difference between earnings and the investment cost incurred to get this earning (Barniv and Myring 2006). Furthermore, Ohlson's 1995 model has been used in this study as one of the most common and cited residual-earning based models, as it provides a logical framework of market value-residual earning linkage on the one hand, and takes other value resources into account on the other. This is especially relevant for the goodwill role in value creation (Richardson and Tinaikar 2004), which is in line with the concept of intangible marketing assets as a supplement to accounting information.

Starting from the linear information dynamics assumption of the Ohlson model, the relationship between residual earnings and firm value is as follows:

$$P_{it} = Y_{it} + a_1 X_{it}^a + a_2 V_{it} \quad (1)$$

where P_{it} = market share price; Y_{it} = book value of equity at date t ; V_{it} = other information rather than accounting figures; while X_{it}^a = abnormal earnings per share for the period t , which is equal to book value at the previous year $t - 1$ multiplied by the risk-free rate. For that, according to Ohlson (1995), abnormal earnings are the output of the subtraction of normal earnings from actual earning, as in (2):

$$X_{it}^a = E_{it} - r_f B_{t-1} \quad (2)$$

E_t = earnings per share for period t ; $r_f B_{t-1}$ = normal earning for period $t - 1$.

The above mathematical relationship (1) presents the market response to available accounting information included in the financial statement, as well as other information provided by other resources as proxy to measure the innovation level of the firm.

In the same manner, Ohlson proposed the return expression (3) depending on lagged uncertain earnings and embedded innovation information (Ohlson 1995):

$$r_{it} - r_f = (1 + a_1) \frac{\Delta X_{it}^a}{P_{it-1}} + a_2 \frac{\Delta V_{it}}{P_{it-1}} \quad (3)$$

In order to estimate the informative role of marketing within the model, the other information variable is replaced by brand equity that is consistent with related interdisciplinary studies (i.e., Sullivan and McCallig 2009; Duqi and Torluccio 2010). Brand equity is calculated based on the perpetuation approach, where the brand equity value reflects the cash flow growth of a firm's operations discounted to an acceptable investment rate from the shareholders' perspective. Therefore, brand equity has been calculated by dividing revenue less marketing cost to weighted average cost of capital (WACC). Brand perpetual value is a numerical comprehensive measurement considering a brand as a perpetual asset concordant with the intangible marketing assets function in cash flow generation/revenue increasing, and is also connected to the capital market response via the WACC rate (Bahadir et al. 2008).

Some control variables are added that are consistent with previous interdisciplinary studies in order to show the individual differences of companies within the sample on the one hand, and to control any illogical effects on the statistical test on the other hand (Bharadwaj et al. 2011). Basically, the size of firm is measured by the natural logarithm of the assets on 31 December and the difference of oil prices as a proxy of the economic situation in oil exporting countries, which leads to the main model of this study as follows:

$$r_{it} - r_f = a_1 \frac{\Delta X_{it}^a}{P_{it-1}} + a_2 \frac{\Delta BRE_{it}}{P_{it-1}} + a_3 \Delta Siz_{it} + a_4 \Delta oil_t \quad (4)$$

Moreover, the moderator variable was added to Equation (4) to identify the role of agency cost (AGECO) in the return-brand model. AGECO is measured by the asset utilization ratio by dividing the revenue by assets. This ratio interprets the investment decisions' efficiency, where a high ratio refers to less efficient asset allocation (Ang et al. 2000).

$$r_{it} - r_f = a_1 \frac{\Delta X_{it}^a}{P_{it-1}} + a_2 \frac{\Delta BRE_{it}}{P_{it-1}} + a_3 \Delta Siz_{it} + a_4 \Delta oil_t + a_5 \frac{\Delta AGCO_{it}}{P_{it-1}} \quad (5)$$

In Equation (5), a_1 explains the reaction of the market against the accounting earnings presented by abnormal (residual) earnings, which has been discussed previously in the framework of capital market-based accounting research, while a_2 determines the level of market response as a result of brand equity impact.

Dynamic-panel regression was used to analyse the impact of independent variables on dependent variables using the random effect model based on the Hausman test (1978), which controls for unobserved effects within the panel level. A generalized method-of-moments (GMM) was applied. The GMM process includes that the population moment is replaced with its sample counterpart (Arellano and Bond 1991). The GMM method employs the first differences of explanatory variables as instruments practically, where the parameter u is shown to be related to some expected value in the distribution of Y , a standard error with an expected value and covariance as $E(u) = 0$ and $cov(x, u) = 0$ (Maddala and Lehiri 2009). This also addresses the problem of autocorrelation and heteroscedasticity of explanatory variables, and model designation is assured as a zero autocorrelation in first-differenced errors (Arellano and Bond 1991).

Variable description is presented in Appendix A. All values were converted to U.S. dollar to ensure homogeneity of data. Furthermore, secondary data of fundamental financial figures and data related to share price of sample company were extracted from Thomson Reuters Refinitiv DataStream, as well as from official websites of markets and companies in the case of missing data.

4. Results and Discussion

4.1. Descriptive Statistics

The study investigates the role of brand on share performance from 2010 to 2019 in the markets under study. Table 2 presents descriptive statistics of the sample data.

Table 2. Descriptive statistics.

	N	Mean	Std. Deviation	Minimum	Maximum
R	360	0.2090	0.6310	−0.8800	8.8770
BRE/USD M	360	8133	5522	491	73,640
B	360	1.1725	0.9060	0.0700	5.8200
X	360	0.0700	0.3020	−0.6000	2.5300
AGCO	360	0.2290	0.3271	0.0050	2.2000
Age	360	26.39	17.15	3.00	67.00
Beta	360	0.8377	0.5468	−0.9000	2.4400
P/B	360	1.5697	0.9310	0.2600	6.6500

The average of sample return is 20.9%, with higher excess returns compared with the FTSE Emerging Index, as presented in Figure 1, and the average of book value is \$1.17, which indicates the superior performance of sample companies compared with the par value, which is not more than in \$0.32. The average of abnormal returns X is close to \$0.07, referring to the margin where the operational return level in sample companies is in excess of the normal return. In connection to agency cost, the average was 22.9%, widely distributed between 0.005 and 2.2 times. On the other hand, the Beta average of the sample was 0.84 times, pointing to a convergent level of volatility between each individual stock and the market as a whole, which indicates that the sample companies have approximately the same risk level of markets because the sample involves most of the blue-chip companies in markets under examination and, therefore, a significant component of the market indices in which they are listed. Finally, the ratio of market to book value (P/B) ranges between 0.26 and 6.65 times, with an average of 1.57 times. This provides evidence of value created by intangible assets in general and marketing assets in particular. This shows that the average is close to the international average at 1.7 and 1.8 in developed markets, and more than the average of emerging markets at 1.3 and Middle East markets at 1.1 (Star Capital 2020).

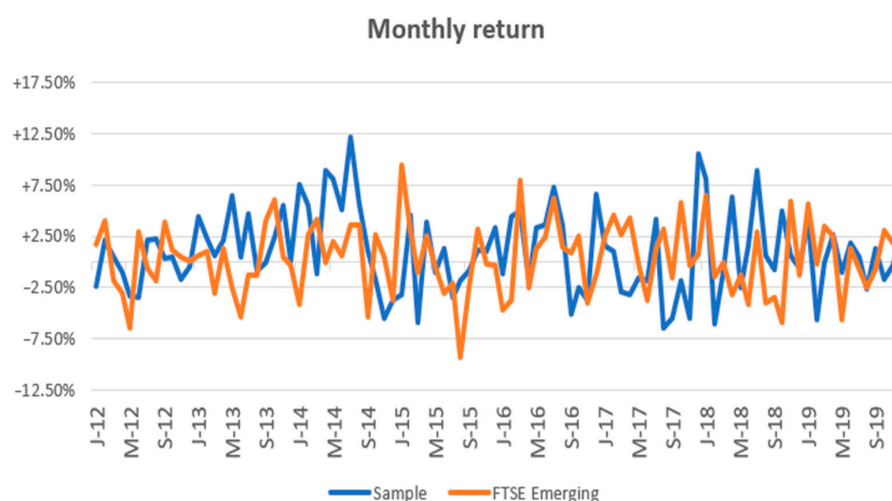


Figure 1. Sample return compared with FTSE emerging return.

4.2. Regression Results and Hypotheses Test

In Table 3, the outputs of GMM regression are illustrated between abnormal return change and brand value change in light of the research model. The findings refer to the significant impact of brand variable on share return controlled by size and oil

price, which is similar to the results of related studies such as Kirk et al. (2013) and Oliveira et al. (2018). According to the R-squared value, the independent variables (mainly residual earning and brand) explain 23.4% (adjusted 12.9%) of the variance of sample portfolio return, which supports the first hypothesis of the brand's direct impact on share return.

Table 3. Regression analysis results of brand's direct impact on return.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.162988	0.015143	10.76358	0.0000
$\Delta X_{it}^a / P_{it-1}$	0.080932	0.053339	1.517318	0.0303
$\Delta BRE_{it} / P_{it-1}$	3.350713	1.221071	2.753886	0.0063
ΔSiz_{it}	0.250784	0.072821	3.443856	0.0007
Δoil_t	0.334040	0.061452	5.435805	0.0000
Weighted Statistics				
R-squared	0.234363	Mean dependent var	0.224118	
Adjusted R-squared	0.129222	S.D. dependent var	0.594155	
S.E. of regression	0.554792	Sum squared resid	87.41353	
Durbin-Watson stat	1.928109	J-statistic	284.0000	

Note: This table includes the generalized method-of-moments (GMM) regression results of the Ohlson model between return as dependent variable residual earnings, brand as a proxy of other information, and control variables over the period 2010–2019.

Table 4 presents the regression results with the moderating impact of agency costs. Based on statistical outputs, agency costs increase the significance level of brand impact on return as well as the moderating impact. Additionally, the explanatory power of the model increases by 10% (R-squared = 33.4%, adjusted = 24.1%) compared with the direct impact model, which supports the second hypothesis of the agency costs' moderating role. It is worth noting that the negative coefficient of the agency costs variable refers to a diminution effect of this kind of cost in light of agency theory principles; that is, to the practical management self-interest behavior, which overburdens shareholders' return (Jensen and Meckling 1976). The results related to the moderator variable show the importance of governance mechanisms in performance enhancement. In other words, the results highlight the moderating role of agency costs in the relationship between marketing assets and firm value, meaning that good corporate governance increases the degree of marketing investment efficiency in value creation.

Table 4. Regression analysis results of agency costs moderator of brand–return.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.137739	0.016340	8.429398	0.0000
$\Delta X_{it}^a / P_{it-1}$	0.092680	0.055358	1.674178	0.0452
$\Delta BRE_{it} / P_{it-1}$	6.931407	2.806108	7.069977	0.0000
ΔSiz_{it}	0.255507	0.073526	3.475053	0.0006
Δoil_t	0.341708	0.064580	5.291196	0.0000
$\Delta AGCO_{it} / P_{it-1}$	−0.509158	0.288937	−1.762175	0.0291
Weighted Statistics				
R-squared	0.339707	Mean dependent var	0.214671	
Adjusted R-squared	0.241016	S.D. dependent var	0.591428	
S.E. of regression	0.517187	Sum squared resid	75.16261	
Durbin-Watson stat	2.030494	J-statistic	281.0000	

This table includes the GMM regression results of the Ohlson model between return as dependent variable residual earnings, brand as a proxy of other information, agency costs as a moderator variable measured by asset utilization ratio, and control variables over the period 2010–2019.

Furthermore, oil prices play a remarkable role in sample portfolio return as all markets in the study are net oil exporting, which in turn leads to a significant correlation direction, which has been reported in Arab Gulf studies (Dutta Anupam and Rothovius 2017; Ben Cheikh et al. 2008).

To ensure the robustness of basic results, we used an alternative proxy for both brand equity and agency costs. The marketing expenditure to total assets ratio was used to measure the brand equity because marketing investment is the main output of creating a firm brand equity according to prior studies (Luo 2008; Ryoo et al. 2016). In relation to agency cost, following relative studies in financial and governance literature (i.e., Jensen 1986), the free cash flow to total assets ratio was used to measure the role of agency cost. Table 5 presents the results of alternative measures.

Table 5. Regression analysis results of alternative measures.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	−0.633603	0.628525	−1.008079	0.3141
$\Delta X_{it}^a / P_{it-1}$	−0.131992	0.053696	−2.458123	0.0145
$\Delta BRE_{it} / P_{it-1}$	7.166510	8.196501	7.998904	0.0000
ΔSiz_{it}	0.345222	0.071958	3.407869	0.0007
Δoil_t	−0.389212	0.064280	−6.054927	0.0000
$\Delta AGCO_{it} / P_{it-1}$	−0.509158	0.288937	−1.762175	0.0291
Weighted Statistics				
R-squared	0.286994	Mean dependent var	0.214671	
Adjusted R-squared	0.272782	S.D. dependent var	0.212352	
S.E. of regression	0.491734	Sum squared resid	72.78248	
Durbin-Watson stat	1.838339	J-statistic	301.0000	

Note: This table includes the GMM regression results of the Ohlson model between return as dependent variable residual earnings, alternative brand measure as a proxy of other information, alternative agency costs as a moderator variable measured by cash flow utilization ratio, and control variables over the period 2010–2019.

The robustness of these outcomes in Table 5 is in line with the original findings regarding the direct impact of brand on share return, as well as the moderating role of agency costs on the proposed valuation model. In general, these results confirm the reliability of our regression model to present the brand–share return relationship.

The statistical results confirm the findings of prior financial research works in relation to residual earnings' impact on return, and support the literature relating to the residual earning valuation model by demonstrating the validity of the Ohlson model in assessing the value of the selected sample stocks. In other words, the informative content of current earnings for predicting future performance (Graham et al. 2005; Mizik and Jacobson 2009). At the same time, adding brand variables promotes the model's valuation power, which is in harmony with other information elements in the Ohlson model and emphasizes the mechanisms of cash flow generation via intangible marketing assets or reducing connected cash flow volatility (Srivastava et al. 1998). On the other hand, our findings provide new evidence about the interactive marketing–financial value relationship. This evidence confirms the pivotal and dual role of the marketing function in improving value in capital market side to side to the traditional role in delivering value to customers.

Synchronously, the results of this paper are corroborative to the CAPM model, which assesses the impact of marketing assets on valuation models in both emerging and developed markets, as the measurement of brand perpetual value corresponds with the market risk hypothesis of CAPM forms. Therefore, a strong brand adds value to the company and reduces the risk associated with the company's activities or with capital markets, especially in emerging markets, where higher risk exists owing to economic and political uncertainty. Accordingly, focusing on building a well-known brand motivates investors and ensures a high valuation of a company (Oliveira et al. 2018).

Moreover, utilizing the agency costs effect in the proposed valuation model within marketing, governance, and market value trilogy provides a promising approach for researchers under interdisciplinary methodology as well as for practitioners to improve performance and achieve goals effectively, whether in the product market or the capital market.

From a business perspective, the results enrich the debate about the reliability of marketing assets for management. Therefore, managers and decision-makers should deal with marketing expenditure as a long-term investment that will positively impact shareholders' value. Moreover, they should deal with it as a powerful function responsible for managing and developing the value for both investors and customers. Consequently, marketing objectives must be considered as a tool for enhancing accounting performance. Furthermore, this paper's findings support the impact of marketing intangible assets in investment decisions when the investor receives this signal and reacts accordingly. In other words, marketing actions are translated into financial outputs. Briefly, marketing applications can be an effective tool for obtaining an outstanding evaluation of the market.

Over and above, the empirical results of this paper shed light on the gap between accounting value and market value, of which a large portion is due to the intangible marketing assets, which in turn play a crucial role in shareholders' value creation. In addition to this, and despite the specific characteristics of the Arab Gulf region, the results of this paper are found to be consistent with the findings of comparable studies in other geographical regions.

5. Conclusions

Based on sample of the most traded companies in four Arabic markets, the current research adopts the Ohlson model to theorize the value relevance of marketing assets through cash flow channels, where the elements of other information in the model can bridge the gap between intangible asset valuation and its effect on investor response. Furthermore, this study provides new evidence about brand importance in emerging markets as a market value driver, meaning that brand information as a comprehensive outcome of marketing efforts is considered by the market as a pivotal part of firm value. Additionally, agency costs boost the brand–firm value relationship, which means that good governance contributes significantly to financial outcomes of marketing.

For future research, using an interdisciplinary methodology, more marketing variables could be studied in light of the marketing–firm valuation relationship, as well as considering other variables as a proxy of firm value or performance. Furthermore, the study of the customer–investor interaction would be a fitting behavioral approach to promoting marketing understanding from a behavioral point of view. Finally, other variables could be studied as a moderator to demonstrate the integrative relationship between marketing and other corporate practices to create and maximize value in emerging markets.

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Appendix A

Table A1. Variables' description and measurements.

Variable	Code	Description	Recourse
Return	$r_{it} - r_f$	$\{[(P_{it} - P_{it-1}) + D] / P_{it-1}\} - r_f$ where P_{it} = annual closing price in period t . P_{it-1} = annual closing price in period $t - 1$. D = dividends r_f = risk-free return measured by the yield on government bonds for ten years	Own calculation based on Thomson Reuters DataStream
Abnormal return	X_{it}^a	operational earnings per share less the normal earning $r_f B_{t-1}$ $X_{it}^a = X_t - r_f B_{t-1}$, where r_f = risk free return, B_{t-1} = book value of previous year	Own calculation based on Thomson Reuters DataStream
Brand equity	BRE_{it}	$\{[\text{Total revenue} - \text{total marketing cost}] / \text{WACC}\}$ Marketing cost = general administrative expenses (SG&A) minus research and development (R&D) expenses. WACC: weighted average cost of capital = $\text{WACC} = \text{VE} \times \text{Re} + \text{VD} \times \text{Rd} \times (1 - \text{Tc})$ where Re = cost of equity calculated by Capital Asset Pricing Model (CAPM) $r = R_f + \beta_i (R_m - R_f)$ R_m = the return of the market portfolio β_i = systematic risk factor calculated using moving five years' window (60 months or at least 36) through regression estimation between monthly return of share and market index. $\beta_i = \text{slop} (R_i, R_m)$ Rd = cost of debt measured by debt interest rate E = market value of the firm's equity D = market value of the firm's debt V = E + D = total market value of the firm's financing E/V = percentage of financing that is equity D/V = percentage of financing that is debt Tc = corporate tax rate	Own calculation based on Thomson Reuters DataStream
Agency cost	AGCO	Asset utilization ratio = sales/total assets	Own calculation based on Thomson Reuters DataStream
Size	Size	Ln (total assets)	Thomson Reuters DataStream
Oil	Oil	Annual closing price of Brent crude price	Thomson Reuters DataStream

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