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Doctoral School of Economic and Regional Sciences

**The Role of Marketing on Firm Value: Evidence from
Arab Emerging Markets**

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1. INTRODUCTION

Capital markets play a crucial role in the modern economy as an important part of the financial system, they provide a good opportunity for individuals looking to increase income, at the same time provide funds to firm's operations (MISHKIN, 2004).

Nowadays, the capital market becomes the most important criteria of firm performance in the framework of maximizing shareholder's value, in other words, transfer value to investors (SACUI & DUMITRU, 2014). As well as, through the capital market, firms could get the necessary funds to promote their outputs and expand their activities (FAUZI & WAHYUDI, 2016). Therefore, firms channel all their available resources to achieve a good market value satisfies shareholder and attract potential investors. Furthermore, the capital market is an occult, where investors buy invisible products or rights which are priced totally based on received information quality or on the vendors' fidelity (BLACK, 2001).

Research efforts are still underway to solve the value puzzle in the capital market as well as to determine the explanatory factors affecting the share return, more than 300 factors have been identified for this role (PHAM et al, 2018). Inherently, firm market value is driven by many engines, where the value encompasses a set of visible factors related to measurable accounting figures as well as a wide range of indiscernible factors which create the value through the interactive channels between product and capital market.

Accordingly, on the basis of integration and overlap between the economic fields, competition between companies in the product market stretches to the capital market, in the sense that the company with a stronger market position, its shares achieve better performance in stocks exchange. (JORYAND NGO, 2017). Likewise, product market demand leads to a difference in the prospective returns in the capital market in the light of competition, all strategic and operating actions of the company interact directly or indirectly with its value in the market (AGUERREVERE, 2009). Additionally, competition is mainly connected to marketing as the most common competition tool in business by creating competitive advantages to persuade the potential customers to choose company product or services without other alternatives available in the market (Burnett, 2008), Increasingly, marketing activities have become the major driver of company performance not only in terms of traditional performance characteristics such as market share and sales growth but in terms of improving returns of shareholders (WEBER, 2001), in the same manner, marketing efforts reflect a long-term investment to achieve future benefits for a company that may be direct financial, such as returns and profitability, or may be indirect marketing as a customer satisfaction, these benefits, in turn, contribute implicitly to explaining the value of the company (TUDOSE & ALEXA, 2017), therefore, relying on traditional standards such as sales

growth and customer satisfaction is not completely appropriate to measure the outcomes of marketing activities, without taking into account capital market measurements, for instant, LEV & ZAROWIN (1999) pointed to that association between share return and accounting profit is less significant because of the inability to include some significant and intangible elements like marketing actions.

Consequently, it is necessary to study the interaction between product market and the capital market or customer- investor connection within the “marketing-finance interface” perspective which shows the impact of the financial and non-financial elements embodied in the company's value. The meaning of that, market value is the reaction output of all available information in both financial and non-financial sides such as marketing actions, at the same time, the concept of marketing modified financially in respect of shareholder concentration when any marketing strategy or marketing spending is adopted.

Understanding the intangible role of marketing in creating a sustainable corporate value would boost the current framework of financial valuation models to move closer to the actual behavior of investor in the market practically in emerging markets where there are still many phenomena and factors that need to be studied and diagnosed.

1.1.Motivations of the research

Day by day, the role of financial markets and listed companies is growing, with large numbers being recorded. According to the World Federation of Exchange (WFE, 2017), the total number of listed companies was 7,06 million companies, the total value of stocks trading was \$ 3,744,001 million, while a new capital raised by share was \$ 13,713 million. On the other hand, the lack of accounting and rational models in carrying out the market value explanation task after proving that most market value returns to intangible assets which is estimated at 90% of S&P 500 market value (OCEAN TOMO, 2019). Similarly, WISNIEWSKI (2016) demonstrated that the rational economic factors illustrate a small percentage of share return volatility which is five to thirteen times more than that estimated by rational dividend discount models. As a result of the evolution of marketing implantations in the era of technological revolution, marketing has become a key function within the firm, and a significant part of budgeting and strategic orientation as well. In response to the development in both market value and marketing structure, contemporary stream of research has analyzed the non- financial and marketing determinants of firm value in long – term to bridge the gap between accounting value and marketing value from two approaches: The first is the impact of marketing on firm value through marketing assets, while the second focuses

on the impact of marketing actions on accounting firm performance and thus the firm value. Based on some economic and managerial theories, scholars use the interdisciplinary method to elucidate marketing role in firm performance such as market-based assets and resource-based theory. Additionally, literature on the relationship between marketing and company performance in capital market have used a range of measures to illustrate both sides variables, table 1 includes some previous literature with measures used in both marketing and capital market fields.

Table 1. Measurement of variables in some related literatures

study	Marketing measurements	Firm' performance measurements
CHENG et al (2018)	Marketing expenditure	Tobin's Q ratio and market share
OLIVEIRA et al (2018)	Brand equity	Stock returns
FORNELL et al (2009)	Customer satisfaction	Stock returns
JOSHI & HANSSSENS (2010)	Advertising spending	Stock returns
LUO & JONG (2012)	Advertising spending	Stock returns
SRINIVASAN et al (2009)	Product innovation and marketing investments.	The explanatory power for stock returns
MCALISTER et al (2007)	Advertising and R&D expenditures	Systematic risk, derived from the capital asset pricing model (CAPM)
GRUCA & REGO (2005)	Customer satisfaction	The growth of future cash flows and reduces its variability
LUO (2007)	Consumers' negative voice	Risk of stock returns.
HUAN & WEI (2012)	Advertising expenditures, investor recognition	Implied cost of capital,
ANDERSON et al (2004)	Customer satisfaction	Tobin's Q
RAO et al (2004)	Firm's branding strategy	Tobin's Q
SINGH et al (2005)	Advertising Expenses	Market-imposed weighted average cost of capital

Source: Own construction based on literature

Researchers tried to express each side within the relationship as well as both the direct effect of marketing and with moderator variables, as a result, several valuation models have been developed to express the impact of marketing information on firm market valuation. Additionally, majority of these research have been conducted in devolved markets which enjoy a high degree of maturity and depth regarding market mechanisms and information flow which in turn influence the investor response. Based on above and in the light of the limited amount of data in emerging markets, especially Arab ones, current research attempts to test the effect of marketing application on firm performance in the capital market by providing comprehensive model depending on a set of independent variables in addition to the moderator variables (governance) in some emerging

markets in Middle East region namely, Qatar, Dubai, Abu Dhabi, and Kuwait. That is, the research aims to discover the role of marketing application as a channel of value transformation between product and financial market which is shown in figure 1. On other words to answer the question to what extent can the results of marketing - firm value in developed markets extend to their emerging counterparts? As well as what is the expected role of governance quality in marketing-firm value relationship?

The context of Arab emerging markets provides a worthy environment to answer the question above also to know the extent to which the results obtained from the developed markets can be applied in different economic environment. Furthermore, a new approach of marketing as a long-term investment requires sufficient strategies employing to ensure a sustainable interest of customer and investor simultaneously that could be an efficient path to enhance firms' resources in emerging markets. Moreover, governance quality presented by agency cost, ownership concentration, and earning quality are expected to boost performance and ensure the optimum utilization of firm's resources including marketing function performance, which can add a managerial dimension to the proposed research model.

1.2.Importance of research

From the scientific view, the research highlights the impact channel of marketing on listed firm performance based on literature review, in sense of relationship analysis between marketing variables and firm value in terms of the theories and mechanisms control this relationship, which can be fuelled the debate of financial and marketing strategies integration. In addition to providing a new model and evidence from emerging markets which differ from developed markets in both marketing practices in product market and in investment practices in the capital market, that can be a first step to develop more models in the framework of marketing- firm value relationship.

From the professional view, the managers and decision makers can use this interdisciplinary approach to maximize the shareholders' wealth. further, marketing models could contribute to explanation the investor behaviour in a market where financial rational models failed to do efficiently. On other words, understanding investor- costumer integration could provide a convenient arrangement between financial and marketing decision makers within firm organizational structure. Briefly, marketing – Finance integration can be an effective tool for obtaining an outstanding evaluation of the market.

1.3.Objectives of research

- 1) To define a new approach to marketing.
- 2) To explain the interaction between finance and marketing fields.
- 3) To determine the nature of the relationship between marketing and financial performance in emerging markets.
- 4) Proposing a model to predict the firm value based on marketing variables.
- 5) To identify the role of proposed moderating variables in the model.
- 6) Comparison of the studied markets in terms of marketing – firm value relationship.
- 7) Provide recommendations that could enhance the current situation in market under study in general and regarding the research variables in particular.

1.4. Hypothesis of research

H1: There is a statistically significant effect of marketing on firm value in the markets under study. .2

H2: The agency cost of company moderates the relationship between marketing and firm value .3

H3: The ownership concentration of company moderates relationship between marketing and firm value. .4

H4: The earning quality of company moderates the relationship between marketing and firm value. .5

H5: The relationship between marketing and firm value in financial companies differ from non-financial. .6

H6: The markets under study differ regarding the relationship between marketing and firm value. .7

7.1.Research structure

In order to capture aspects of the research questions, the research was designed to include an adequate theoretical framework that is consistent with what was stated in the literature and to be supported by a practical section to test hypotheses statistically. The research consists of four chapters in addition to the introduction, the second chapter presents the related theories and mechanisms of marketing – firm value relationship starting by a new approach of marketing then the impact of some marketing element (assets and actions) on firm value has been presented. Additionally, the background of Arabic emerging markets with focusing on four markets under study has been presented. The third chapter includes the sample procedures, econometric model description and variables measurements as well as the statistical methodology, while the fourth chapter deals with statistical analysis and results deduction. Finally, some remarks points have been presented and some recommendation have been suggested in the fifth chapter.

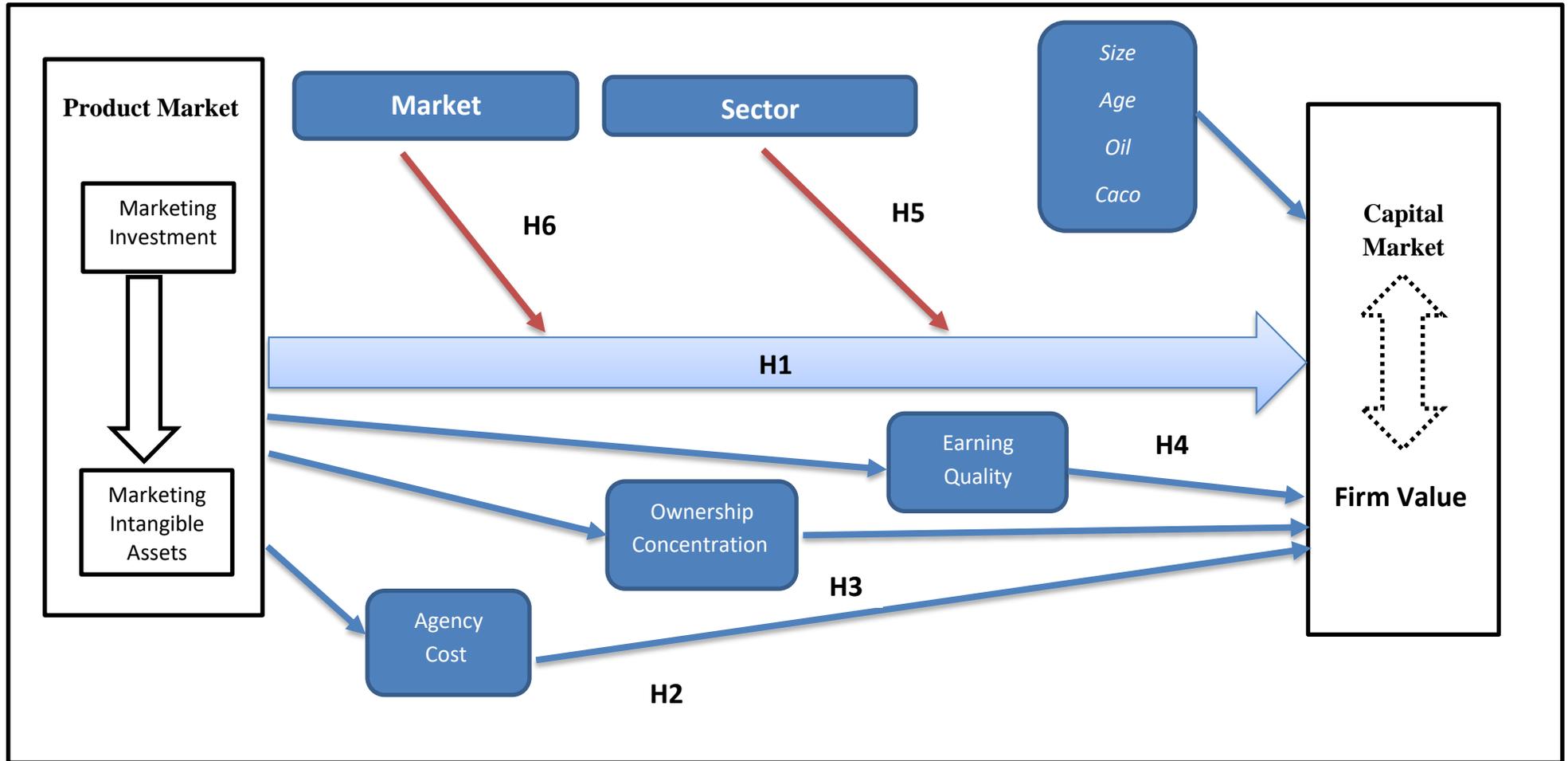


Figure 1. Conceptual model of research

Source: Author's own construction

2. MATERIALS AND METHODS

The main focus in this research is to test the empirical models of firm value and marketing in Arab markets. According to the nature of variables and in line with related literature, the scientific methodology associated with time series was used to exam the potential relationship between variables involved in the statistical model. This chapter identify sample and target population, research model design steps, definition of research variables and measurement, and the applied statistical tests and techniques.

2.1. Sampling Procedure & Target Population

The target population of research involves all listed company on the Arab emerging markets according to FTSE classification, four markets were selected (Qatar, Dubai, Abu Dhabi, Kuwait). Based on the same economic and social circumstances as well as the structure of financial market, in the next step, the listed companies within the constituents of FTSE Emerging index were identified and specific characteristics had been applied to determine the final sample as following:

- I. Company has accounting data for consecutive years between 2010 and 2019 to exclude the impact of 2008 global financial crisis.
- II. The accounting period ends in 31-December.
- III. The company is considered within FTSE Emerging index constituents for a minimum of four periods.
- IV. The book value is positive for all series years.
- V. 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) from the blue chips of the four markets under study as well as divided into six sectors, services, industrial, real state, telecoms, transportation, and financial, knowing that the sample presents more than 60% of trading value in markets they listed on.

Table. 2 shows that 44 companies are considered in FTSE Emerging Index constituents which symbolize the most liquid companies in the four markets by 3% of index weight and Cap market by 149.6 USD billion. While 36 companies have met the sample requirements by 2.73% of index weight and 140.8 USD billion as a market Cap which presents 30% of four markets in term of market capitalization.

Table 2. Sample of research

Criteria	Qatar	Dubai	Abu Dhabi	Kuwait	Total
Market Listed companies	43	68	70	216	397
MCap USD B	160.1	104.4	112.2	96.3	473.0
FTSE Emerging Index constituents	19	8	7	10	44
Weight	1.14%	0.43%	0.5%	0.93%	3%
MCap USD B	56.8	21.4	24.9	46.5	149.6
Sample	16	5	5	10	36
Weight	1.08%	0.31%	0.41%	0.93%	2.73%
MCap USD B	54.4	18.4	21.5	46.5	140.8
MCap Sample percentage	34%	17%	19%	48%	30%

Source: Own calculation based on the data from FTSE RUSSELL. (2020)

2.2. Model Formulation

Intrinsically, the listed company value is linked to investor expectations about its future through many measures (models) such as future cash flows, dividends, earnings, and residual earnings (SULLIVAN AND MCCALLIG, 2009). Likewise, the literature also demonstrated the importance of earning as a proxy for investment appraisal and decision making by shareholders as it reflects more appropriately the information available compared to other models (FRANCIS et al, 2000). Wherefore the current research adopts Ohlson (1995) as one of the most important residual earnings-based valuation models which published in 1995, some refinements have been applied later (FELTHAM & OHLSON, 1995, 1996; OHLSON & JUETTNER-NAUROTH, 2005; OHLSON, 1999, 2005, 2009). Substantially, the model has gained appreciable attention among relative research due to a logical assumptions and mathematical structure depending on accounting figures.

The starting point of the model is the company's value as a function of expected dividends

$$MV_t = \sum_{i=1}^{\infty} \frac{E(d_{t+i})}{(1+r)^i} \quad (1)$$

Where MV_t = market firm value at date t, $E(d_{t+i})$ = the expected dividends received at date t+i; r = the discount rate that is supposed to be constant within the non-chaotic interest hypothesis

The second assumption of Ohlson states that retained earnings restricted to the profits and dividends of the period which called clean surplus relationship between book value, earnings and dividends as in equation (2):

$$B_t = B_{t-1} + X_t - d_t \quad (2)$$

Where B_t = Book value of equity at date t, X_t = Earnings for period t; d_t = dividends paid at date t.

Furthermore, normal earnings equal to book value at previous year t-1 multiplied by cost of capital, for that, abnormal earnings are the output of the subtract normal earnings from actual earning

$$X_t^a = X_t - rB_{t-1} \quad (3)$$

Where X_t^a = abnormal earnings for period t

From (2) and (3), dividends can be expressed as follows

$$d_t = X_t^a + (1+r)B_{t-1} - B_t \quad (4)$$

In the same logic, d_t can be replaced in (1)

$$MV_t = B_t + \sum_{i=1}^{\infty} \frac{E(X_{t+i}^a)}{(1+r)^i} \quad (5)$$

Equation (5) expresses the residual income valuation model RIV which indicates that the company value in the market can be calculated by adding the discounted value of expected abnormal earnings to the book value of the same period. One of most important advantage of RIV model that the firm value is independent of the accounting choices effect (OTA, 2002)

The third assumption embodies the time series behavior of abnormal earnings through a linear information dynamic which is considered the most important contribution of the model as it created the link between current information and the intrinsic value according to following equations:

$$X_{t+1}^a = \omega_{11} X_t^a + V_t + \varepsilon_{1t+1} \quad (6a)$$

$$V_{t+1} = \gamma V_t + \varepsilon_{zt+1} \quad (6b)$$

Where: X_t^a = abnormal earnings per share for the period t which explained in (3); V_t = other information; ω_{11}, γ = persistence parameters of abnormal earnings and other information respectively ($0 \leq \omega_{11}, \gamma < 1$); $\varepsilon_{1t}, \varepsilon_{zt}$ = error terms.

By combining RIV model in (5) with linear information dynamic model in (6a) and (6b), the valuation function can be presented in equation (7):

$$MV_t = B_t + a_1 X_t^a + \beta_1 V_t \quad (7)$$

According to Ohlson (1995), the valuation model expressed in (7) conclude that the abnormal earnings are produced by monopoly position of company in product market as well as the returns tend towards the cost of capital in the long run due to competition level. On the other hand, V_t demonstrates the other information determine the price more than accounting information on other words, the other elements which could play a significant role in investor decision. This assumption is harmonious with marketing- firm value research stream in connection with addition information provided by marketing variables to accounting numbers to forecast stock price (AAKER & JACOBSON, 2001; SULLIVAN & MCCALLIG, 2009). Accordingly, current research uses the marketing investment as a proxy of other information in the model which measured by marketing expenses calculated as selling and general administrative expenses (SG&A) minus R&D expenses (MIZIK & JACOBSON, 2007; LUO, 2008; RYOO, 2016), due to the role of marketing as a long-term investment, marketing expenses had been divided by total assets and lagged by one year as following calculation:

$$Marin_{t-1} = [(SG\&A-R\&D)] / \text{Total assets} \quad (8)$$

Therefore, the main model presented in (8)

$$MV_t = B_t + a_1 X_t^a + \beta_1 Marin_{t-1} \quad (9)$$

Where: $Marin_{t-1}$ = marketing investment for the period t-1, X_t^a = abnormal earnings for the period t. where r = cost of capital calculated by the Capital Asset Pricing Model CAPM (FAMA,1970):

$$r = R_f + \beta_i (R_m - R_f)$$

where: R_f = risk free return; R_m the return of the market portfolio; β_i = systematic risk factor of correlation between specific share and market portfolio.

Ohlson 1995 model has been used in this research as one of the most common and cited residual earning based model since it provides a logical framework of market value- residual earning linkage on the one hand and taking the other value resources into account on the other hand particularly the goodwill role in value creation (RICHARDSON & TINAIKAR, 2004), which is

in line with the concept of intangible marketing assets as a supplement to accounting information of tangible assets which could be an adequate measure to narrow the obvious variation between market value and disclosed accounting information. Marketing efforts can add predictive power to the valuation model in parallel with abnormal earnings, particularly explaining the gap between the market and book value through creating intangible marketing assets which provides a logical explication of observations related to market value.

2.3. Variables Description and Measurements

In addition to marketing investment Mar_t , current research aims to test the impact of three moderator variables under the company governance quality. In addition to some control variable as in table 4.2. The first moderator variable is ownership structure, the concentration of ownership enhance the performance from both perspective of control and cash flow rights (HANAFI et al, 2018), significantly, higher performance requests less widespread ownership in the light of agency problem (KAPOPOULOS & LAZARETOU, 2007), furthermore, companies with higher marketing expenditure have a higher level of ownership spreading in terms of shareholders number (GRULLON et al, 2004), in current research the ownership structure measured by the percentage of the largest twenty shareholders ownership.

The second moderating variable is agency costs which 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, to reduce the negative impact of interests' conflict between the two parties. In general, agency costs connect to firm performance by motivating managers to improve the company's results (COLOMBO et al, 2014).

Due to the purpose of this kind of cost, agency costs connect to firm performance through cash flows channel by two aspects, first, high competition level of product market leads to lower agency costs, whereas the limited chance to achieve cash flows surplus compared to competitors pushes shareholders to tighten control over managers' decisions (MITTON, 2004; KARUNA, 2007). Second, agency costs linked adversely to debt portion in company financial structure since financial leverage guides managers to serve debt and thus the need for cash flow contribute to more profitability actions by managers, on other words, reducing ineffective decisions to invest cash flow surplus (CHENG & TZENG, 2011). From the other side several empirical studies investigate agency costs – ownership structure interconnection, ANG et al (2000) pointed out that these costs are lower in case of managers' ownership or lender banks significant proportion in SMEs that confirmed letter for large companies by SINGH & DAVIDSON (2001). As well as

agency costs increase with high ownership widespread and vice versa in the case of managers' ownership (FLEMING, 2005; RASHID, 2016). Based on literatures stream, the current research uses asset utilization ratio to measure agency costs by dividing the revenue on assets, this ratio interprets the investment decisions efficiency, where the high ratio refers to less efficient assets allocation (ANG et al, 2000).

The third moderator variable is earnings quality which refers to the level of earning management in order to affect the decisions of stockholders adopted the prepared accounting information. Alternatively, earning quality measured depending on correlation between accruals and cash flows such as JONES (1991) and Dechow & Dichev (2002) model (LO, 2008). In relation to governance, auditing committee as a governance mechanism is responsible for controlling the financial reports quality and the degree of earnings management within them (INAAM & KHAMOUSSI, 2016). Basically, correct and fire financial reports leverage the trust of firm stakeholders which in turn enhance the image of company within the players of capital market. the current research uses combined scale of accruals, cashflow and operational efficiency calculated by Thomson Reuters DataStream.

Through their connection to decision making frame in the company, governance quality variables aim to maintenance stakeholders' financial interest including customers and shareholders by enhancing the operational functions in the light of efficient control that interrelated to intangible marketing assets – firm value linkage since the first results from interaction with different parties, where the convenient actions of managers lead to effective cash flow investment which in turn elevates the outcomes of marketing investment.

In relation to control variables, the age of company was included in the model, measured by the number of years since its establishment due to the fact that older company has more accumulated intangible assets and in turn higher capacity to increase operational cash flows (SINGH et al, 2005). Regarding the company performance, operational free cash flow yield was adopted to control the operational efficiency of sample companies. Likewise, to illustrate the economic conditions in the model, annual change of Brent crude price was added since all markets under study belongs to oil producing countries which could be an appropriate proxy of macroeconomic performance. Finally, in order to manifest the brand equity weight of companies under study, the Brand finance report of the 50 most valuable Middle Eastern brand (Brand Finance, 2019) was adopted through dummy variable which given 1 in case the company included in the report for at least one time in the last five years and 0 for opposite case. Table 3 includes variables coding and description to show the measurement used as well as the data recourse.

Table 3. variables of research

variable	Code	Description	Recourse
Price	P	Annual Closing price	Thomson Reuters DataStream
Book value	B	Book value in 31-December, equity/ outstanding share number	Thomson Reuters DataStream
Abnormal return	X	= earnings per shar less the normal earning rB_{t-1} $X_t^a = X_t - rB_{t-1}$ where r = cost of capital calculated by CAPM model $r =$ $R_f + \beta_i (R_m - R_f)$	
	R_f	Risk free return measured by the yield on government bonds for ten years	Thomson Reuters DataStream
	R_m	The return of the market portfolio	Thomson Reuters DataStream
	β_i	Systematic risk factor calculated by using moving five years' window (60 months or at least 36) through regression estimation between monthly return of share and market index. $\beta_i = \text{slop} (R_i, R_m)$	Own calculation based on Thomson Reuters DataStream
Marketing investment	<i>Marin</i>	Marketing expenses / total assets	Own calculation based on Thomson Reuters DataStream
Ownership structure	<i>OW</i>	Total ownership percentage of the largest twenty shareholders	Thomson Reuters DataStream
Agency cost	<i>Agco</i>	Asset utilization ratio = sales / total assets	Own calculation based on Thomson Reuters DataStream
Earnings quality	<i>Eaqu</i>	Combined scale accruals, cashflow and operational efficiency of 100	Thomson Reuters DataStream

variable	Code	Description	Recourse
Size	<i>Size</i>	Ln (total assets)	Thomson Reuters DataStream
Age	<i>Age</i>	Number of years from establishment	Thomson Reuters DataStream
operational free cash flow yalied	<i>FOCF</i>	Operational free cashflows / market value	Thomson Reuters DataStream
Oil	<i>Oil</i>	Annual change of Brent crude price	Thomson Reuters DataStream
Brand equity	<i>Bran</i>	Dummy variable takes 1 in case the company included in brand finance report and vice versa.	Brand Finance publications

Source: Own construction based on literature

2.4. Statistical Tests Used

Following the research objectives and based the research dataset structure, panel data methodology has been adopted to analysis the variables trend as well as the relationships among them. Panel data methodology is preferred in econometrics for their accurate outputs since it considers both the time dimension in the series and the sectional dimension of individual units. In current research, data consists of time series and each cross-sectional part in turn includes a group of observations, which involves annual time series of listed companies' indicators on four markets. Ultimately, econometric model states that time is a conclusive factor in determining the impact of past events on those in the future (ASTERIOU & Hall, 2011).

In line with panel date methodology steps, a set of statistical methods were used, first, some descriptive statistics were calculated to display the data fundamental criteria such as mean to show the distribution of data, stander deviation to estimate the variability and dispersion of data. In addition to minimum and maximum value to demonstrate the range the date distributes within. Also, correlation test was applied to investigate the initial relationship between dependent variable and independent variables as well as the independent variables with each other to indicates the multicollinearity issue which appear when two or more independent variables are highly correlated to each other.

The next step is stationarity checking of model variables by Unit Root Test URT, the stationarity is initial term of model estimation to avoid misleading regression of time series. URT has been conducted by using Augmented Dickey-Fuller ADF (1979). The aim of ADF is to decide the level of time series stationarity or the number of difference lags whether it is at 0 level ($X = X_t$), at first differenced level ($X = X_t - X_{t-1}$), and at second differenced level ($X = X_t - X_{t-2}$). In other words, ADF provides a proof of trend stationary or difference stationary model data series to explain the regression trend within time series (GREENE, 2011).

The following part related to model estimation to define the fit model which reflects the relationship between dependent and independent variables depending on relative statistics such as determination factor R^2 to determine the explanation percentage of model and adjusted R^2 to excluded sample size effect in addition to F-statistic test of model statistical significance and to test its predictability as well as the validity of the model to represent the relationship between dependent and independent variables statistically.

In the last step, consistency test has been conducted to evaluate the likelihood of endogenous regressors impact in the regression model, the output model could be a Fixed Effects Model FEM, where unobserved heterogeneity variable which are consist over time are controlled by fixed trend over the time therefore the parameters of regression model present a fixed variable, while Random Effects Model REM refers to the case when unobserved heterogeneity variable which are consist over time correlated to independent variables which leads to random trend of time regression. HAUSMAN test (1978) has been used to choose the fit method from consistency point of view where the null hypothesis states that the random effects method is preferred for model while the alternate hypothesis supported the fixed effects model.

All values have been converted to US dollar to ensure homogeneity of data knowing that all used currencies have fixed exchange rate with US dollar. Furthermore, EViews 10 statistical package was used for data analysis and hypothesis test, EViews is adequate package for handling time series methodology including cross-sectional data and Panel data. Regarding data collection, secondary data of fundamental financial figures and data related to share price of sample company extracted from Thomson Reuters Refinitiv DataStream as well as from official websites of markets and companies in case of missing data.

3. RESULTS

In this chapter, the steps of statistical test have been presented as well as the outputs of EViews have been analyzed in the framework of research hypothesis. On other words, to provide an empirical proof of conceptual structure including the relationship between marketing variable and firm value in the markets under study.

3.1. Descriptive statistics

Basically, mean, stander deviation, and maximum and minimum value were presented in tables below for the whole portfolio of all companies as well as for each market individually.

Table 4. Descriptive statistics of whole sample portfolio

	N	Minimum	Maximum	Mean	Std. Deviation
<i>P</i>	360	0.122	12.390	1.6816	1.5406
<i>B</i>	360	0.070	5.820	1.1725	0.9062
<i>X</i>	360	-0.600	2.530	0.0703	0.3027
<i>Marin</i>	360	0.001	0.432	0.0259	0.0172
<i>Mar</i>	360	0.600	3,601	248.623	392.2894
<i>Agco</i>	360	0.005	2.200	0.2290	0.3271
<i>Eaqu</i>	360	1.000	98.00	50.8920	24.8301
<i>OW</i>	360	0.050	0.999	0.4202	0.2362
<i>Age</i>	360	3.000	67.000	26.3900	17.1510
<i>Total Assets USD M</i>	360	101	259,532	23,251	36,857
<i>OIL</i>	360	-0.511	0.323	0.0293	0.2467
<i>FOCF</i>	360	-86.16	80.430	1.8049	12.9726
Beta	360	-0.900	2.440	0.8377	0.5468
P/B	360	0.260	6.650	1.5697	0.9310

Source: Own composition based on EViews outputs

From table 4, the share price *P* of all sample companies ranges between \$ 0.122 and \$ 12.39 with an average of \$ 1.68 and standard deviation by \$1.5, which indicates the superior performance of sample companies compared to the par value that is not more than in \$ 0.32 in the companies under

study. Which supported by the average of book value is \$ 1.17 ranges between 0,07 and 5.82 referring to the level of the capital accumulation for sample companies age indicators. In the same manner the youngest company is 13 years old (the establishment date is 3 years before 2010), also the average of sample companies age is approximately 36.4 years (26.4 years before 2010). With respect to abnormal returns X , the average is close to \$ 0.07 that could be a reference of operational return level in sample companies that excess of the normal return weighted at cost of capital, put it otherwise, the abnormal return shed light at return on investment based on accounting statements. Regarding the marketing investment *Marin*, values are between 0.001 and 0.43 with average at 0.026, which shows that the average of sample companies marketing expenditure amounts to 2.6 percent of total assets. While the marketing expenditure average at \$ 284 million within a range between \$ 0.6 million and \$ 3,601 million.

In relation to control variables, sample companies differ mightily in size measured by total assets within a range between \$101million and \$ 2,595 million and the mean was \$ 23,251 million as a result of the selected companies' criteria that present the largest list companies on markets under study. Likewise, operational performance measured by free operational cash flow yield ranges between -86.16 and 80.43 with average at 1.8.

In connection to company governance quality, agency cost mean was 22.9% and widely distributed between 0.005 and 2.2 times, similarly, earning quality average was close to 51% within the middle level of financial reports quality and therefore the reliability of accounting figures of sample companies, while the ownership structure reflects a high concentration by average at 42% of the largest twenty shareholders' ownership between 5% and 99%.

On the other hand, Beta average of sample was 0.84 time pointing out to a convergent level of volatility for each individual stock and the market as a whole, meaning that the sample companies approximately has the same risk level of markets because the sample involves most of blue ships companies in markets under study and therefore most of main indexes components of the markets main indices. Finally, the ratio of market to book value P/B ranges between 0.26 and 6.65 times with average at 1.57 times, that provide an evidence of value created by intangible assets in general and marketing assets particularly. Knowing that the average is close to international average at 1.7 and more than the other regions average where it is 1.8 in developed markets, 1.3 in emerging markets, 1.1 in middle East markets (STAR CAPITAL, 2020).

Figure 2 includes some variables average of whole portfolio and for each market, where Kuwait portfolio has the highest average value in terms of ownership, agency cost, marketing investment and share price, while Qatar portfolio has the highest average value in market to book ratio.

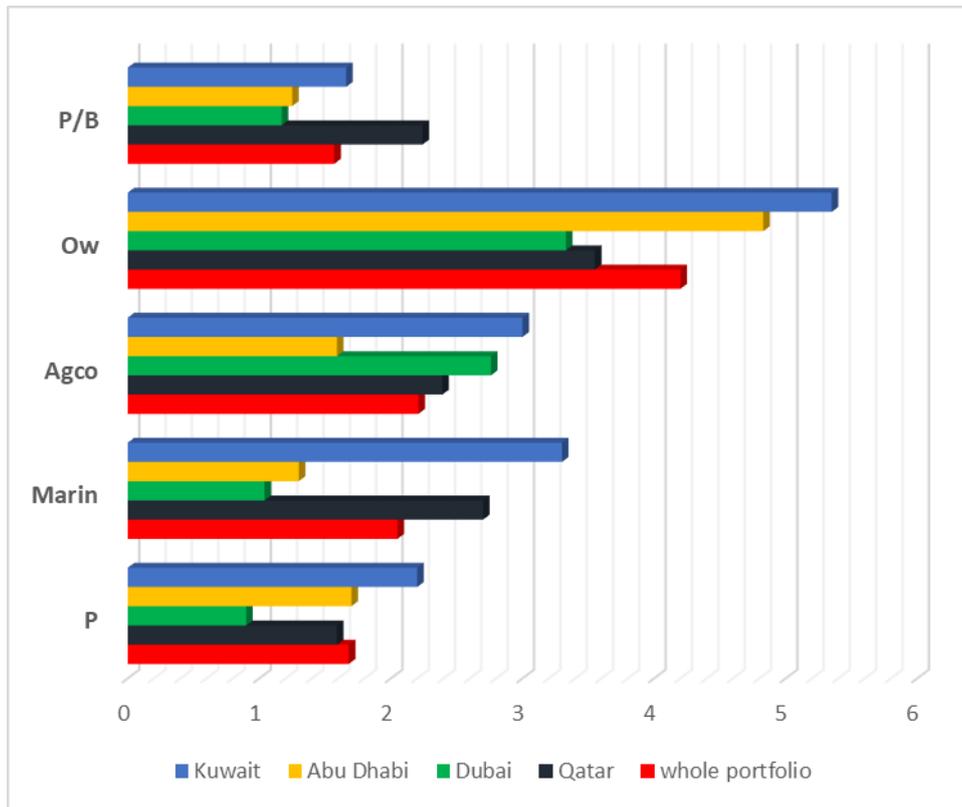


Figure 2. Some variables average

Source: Thomson Reuters DataStream

The high values in the Kuwait market because of the history of the market as the oldest market within the markets under study which leads to higher level of accumulating values. In general, the performance levels and the variables in the four markets are converging, that reflecting the similar geographical and economic situation.

3.2. Correlation Analysis

Correlation refers to statistical linkage between variables, it is the first step to show the anticipated relationship between variables under stud as well as it indicates the multicollinearity issue which appear when two or more explanatory variables are highly correlated to each other. Generally, multicollinearity issue leads to unfitting results of regression model. In current research, Pearson correlation coefficient had been used to identify the correlation / independency level between variables within the rang (-1, +1).

Table 5. variables correlation matrix

	<i>P</i>	<i>B</i>	<i>X</i>	<i>Marin</i>	<i>Agco</i>	<i>Eaqu</i>	<i>OW</i>	<i>Age</i>	<i>Size</i>	<i>Oil</i>	<i>Bran</i>	<i>FOCF</i>
<i>P</i>	1											
<i>B</i>	0.055	1										
<i>X</i>	.344**	0.092	1									
<i>Marin</i>	0.235**	.161**	0.032	1								
<i>Agco</i>	.240**	.561**	0.092	-0.087	1							
<i>Eaqu</i>	-0.047	-0.009	0.007	0.063	.561**	1						
<i>OW</i>	.151**	0.033	0.074	0.050	0.034	-0.090	1					
<i>Age</i>	.187**	.323**	0.061	-0.082	-.319**	-.302**	0.101	1				
<i>Size</i>	0.034	.259**	-0.004	0.024	-.579**	-.608**	0.076	.576**	1			
<i>Oil</i>	-0.045	0.078	.105**	-0.025	0.004	-0.007	-0.049	-0.038	-0.036	1		
<i>Bran</i>	.260	.147**	.138**	-.074**	-.184	-.531**	-0.069	.419**	.602**	0.000	1	
<i>FOCF</i>	0.071	.314**	0.017	0.064	0.022	-0.044	0.021	0.059	0.035	0.018	0.026	1

***. Correlation is significant at the 0.05 level (2-tailed).*

Source: Own composition based on EViews outputs

Table 5 presents a correlation matrix of research variables, correlation outputs show that there is a significant correlation between the dependent variable price *P* and each of abnormal return *X* (34%), marketing investment *Marin* (23.5%), agency cost *Agco* (18.7%), ownership *OW* (15.1%), and *Age* (18.7%) where the value of Sig is less than 5% ($P < 0.05$). Furthermore, some independent variables correlated significantly at level of 5% with correlation value less than 70% which can indicate that there is no autocorrelation issue among the independent variables as the first sign before Durbin-Watson test application. Basically, time series data are appropriate for statistical analysis and model estimation can be proceed through panel data regression steps in order to test the research hypotheses.

3.3. Panel Data Model Estimation

In this section, panel data analysis has been conducted to test research hypotheses depending on the three steps, stationarity checking through ADF, model estimation, and consistency through

Hausman test for direct impact without moderating variables based on the first hypothesis H1, also moderating impact to determine the effect of moderating variables based on second hypothesis H2, then for financial and non-financial companies in line with H3 hypothesis and finally, for each market to test H4 hypothesis.

3.3.1. The Direct Impact of Marketing Investment on Firm Value

The three steps of panel data analysis have applied to inference the direct effect model of marketing on market value without governance quality variables and with control variables. First, Augmented Dickey-Fuller ADF was used on order to check model stationarity in the Unit Root Test.

From above table, all variables show stationarity in their level form $I(0)$ where prob value is less than 5%, meaning that the null hypothesis of unit root is rejected and all variables are integrated of order 0. Consequently, the time series data is fit for model estimation.

The model estimation was examined in the next step as presented in table 6 including balanced panel data with 36 cross sections (companies) for 10 years' time series.

From the table, it can be noted that abnormal earning X , marketing investment $Marin$, and size have a significant effect on the dependent variable P , where the value of prob is 0.00, 0.0487, 0.00 respectively which is $< 5\%$. While there is no significant effect of B , Age, Oil, Bran, and FOCF on share price P where prob value is more than 5%. Moreover, the value of the coefficient of determination is 60.4 (adjusted 57.5) that indicates that the accepted independent variables explain 57.5% of the variance of dependent variable P as well as prob(F-statistic) is less than 5% referring to that the model is statistically significant on the other words, when the abnormal earning, marketing investment, and size increase by one unit, the share price increase by 3.03, 0.226, and 1.18 respectively. The impact of abnormal earning consistent with previous financial research and the same for size as a control variable.

The last step is to apply Hausman test to choose the fit estimation method in the last part of the table, where the prob value of Chi-Squared test is less than 5%, so the null hypothesis is rejected, and the estimation is by the fixed effects method. As a result, marketing investment affects share price as a proxy of firm value in the market that consistent with the first hypothesis about the direct effect of marketing investment on firm value.

Table 6. the estimation of direct impact model

Dependent Variable: P				
Method: Panel Least Squares				
Sample: 2010 2019				
Periods included: 10				
Cross-sections included: 36				
Total panel (balanced) observations: 360				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
<i>C</i>	-10.2759	1.565831	-6.56259	0.000
<i>B</i>	-0.24551	0.179941	-1.36436	0.1734
<i>X</i>	3.038562	0.350325	8.67355	0.000
<i>Marin</i>	0.226308	0.021341	6.45921	0.0487
<i>Age</i>	0.06969	0.078351	0.88946	0.3744
<i>Size</i>	1.188166	0.189704	6.26328	0.000
<i>Oil</i>	0.068976	0.180079	0.38303	0.702
<i>Bran</i>	-0.302554	0.201674	-1.402743	0.1425
<i>FOCF</i>	0.520099	0.596458	0.87198	0.3839
Weighted Statistics				
R-squared	0.604415	Mean dependent var	1.68159	
Adjusted R-squared	0.575125	S.D. dependent var	1.540646	
S.E. of regression	0.807502	Akaike info criterion	2.521945	
Sum squared residue	206.703	Schwarz criterion	2.986118	
F-statistic	23.56691	Hannan-Quinn criter.	2.706509	
Prob(F-statistic)	0.000	Durbin-Watson stat	1.424371	
Correlated Random Effects - Hausman Test				
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.	
Cross-section random	136.505151	8	0.000	

Source: Own composition based on EViews outputs

3.3.2. The Impact of Marketing Investment on Firm Value with Moderating Variables

The research tries to answer the question of the role of the three moderating variables on the relationship of marketing and market value, consequently three moderating variables were added

to panel data analysis steps. The unit root test by ADF in table 5.8 shows that all variables is stationary in their level $I(0)$ since prob value is less than 5% referring to continue in model estimation analysis.

Table. 7 involves the model estimation of firm value measured by P as a dependent variables and book value B , abnormal earning X With the presence of the three moderating variables: agency cost $Agco$, earning quality $Eaqu$ and ownership concentration OW in addition to control variables.

The table shows that dependent variable P is affected scientifically by book value by 0.83, abnormal earning by 1.55, marketing investment by 1.17, size by 0.32, agency cost by 0.97, and ownership concentration by -1.19. further the adjusted R-squared is 0.675 which indicates that the included independent variables explain 67.5% of the dependent variable P variance as well as $\text{prob}(F\text{-statistic}) = 0.0001$ is less than 5% referring to that the model is statistically significant. The explanatory power of the model increases with moderating variables comparing to direct impact model as well as Durbin-Watson test value is around 2.00 (1.85) as an indication that the model is free from the autocorrelation issue. Further Hausman test outputs show that the prob value of Chi - Squared is 0.000 (less than 5%) which means that model estimation is by the fixed effects method. In regard to model coefficients, the negative coefficient of ownership variable indicates to negative impact of ownership concentration on firm value where high ownership concentration is a distinctive feature of underdeveloped capital markets (VINTILA & GHERGHINA, 2014), generally, the argument of ownership structure role especially institutional ownership on firm value has still been going (ELGHOUTY & EL-MASRY, 2017) where some research concluded the positive role, while other concluded negative impact (VINTILA & GHERGHINA, 2014; CHARFEDDINE & ELMARZOUGUI, 2010; CLARK & WÓJCIK, 2005), in current research sample, most of block shareholders are strategic institutional investors who aim to reduce the price volatility with considerable power in decision making as well as in information flow, also they have a high level of shares supply and therefore the market price. In the same manner, agency cost affects positively on firm value which signifies the efficiency of management decisions where the benefits of agency control exceed the incurred costs and consequently translated positively by the market, this result consistent with previous literature (NAM et al, 2006), while the coefficient of marketing investment is 1.07 that is, the increasing of marketing investment by one unit leads to share value increasing by 1.07 unit, which reemphasize the weight of marketing as an investment that the market responds to through value growth. Subsequently, agency cost and ownership concentration boost the impact of marketing on firm value as an answer of research question about moderating model.

Table 7. The estimation of moderation impact model

Dependent Variable: P				
Method: Panel Least Squares				
Sample: 2010 2019				
Periods included: 10				
Cross-sections included: 36				
Total panel (balanced) observations: 360				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
<i>C</i>	0.274819	1.766444	1.570851	0.000
<i>B</i>	0.83246	0.241914	3.441131	0.001
<i>X</i>	1.545535	0.348268	4.437776	0.000
<i>Marin</i>	1.074819	0.160067	-2.146088	0.0326
<i>Age</i>	0.001923	0.018331	0.104903	0.9165
<i>Size</i>	0.321781	0.207124	1.553569	0.000
<i>Oil</i>	0.104030	0.161514	0.644093	0.5210
<i>Bran</i>	-0.381382	0.201674	-1.402743	0.1425
<i>FOCF</i>	0.520099	0.596458	0.87198	0.3839
<i>Agco</i>	0.978418	0.477059	2.050935	0.0411
<i>Eaqu</i>	0.211591	0.609445	0.347177	0.7290
<i>OW</i>	-1.199772	0.551692	-2.174714	0.0304
Weighted Statistics				
R-squared	0.707425	Mean dependent var	2.202144	
Adjusted R-squared	0.675285	S.D. dependent var	2.100045	
S.E. of regression	0.713772	Akaike info criterion	2.428571	
Sum squared reside	158.9548	Schwarz criterion	2.975657	
F-statistic	29.53694	Hannan-Quinn criter.	2.649987	
Prob(F-statistic)	0.0001	Durbin-Watson stat	1.855991	
Correlated Random Effects - Hausman Test				
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.	
Cross-section random	80.4665	11	0.000	

Source: Own composition based on EViews outputs

3.4. Results Summary and Hypotheses Verification

In this part, all resulted eight models are summarized to show the impact of independent variables on firm value measured by share price as in table 8:

Table 8. The Summary of Results

model	<i>B</i>	<i>X</i>	<i>Marin</i>	<i>Size</i>	<i>Age</i>	<i>Agco</i> H2	<i>Ow</i> H3	<i>Ad-R²</i>
Direct impact H1		3.038*	0.226*	1.188*				57.5%
Moderating impact	0.832*	1.545*	1.074*	0.321*		0.978*	-1.199*	67.5%
Financial sector H5	1.134*	0.703*	0.693*		0.040*		-1.182	57.2%
Non-financial sector H5	2.259*	0.890*	0.324*	0.0014*	0.071*		-0.351*	65.8%
Qatar H6	0.832*	3.663*	0.211*					82.3%
Dubai H6	0.739*	0.389*	0.393*		0.025*			66.5%
Abu Dhabi H6	1.075*	7.052*			0.038*	2.396*		79.1%
Kuwait H6	2.367*		0.409*				-0.292*	69.4%

* significant at the 0.05 level

Source: Own composition based on EViews outputs

Both of book value and abnormal return is accepted in seven of eight models which consistent with Ohlson model studies in the light of valuation based on accounting figures as a one of the most important limitation of market value. In other words, share price involves the current and historical accounting performance measures. Further, marketing investment has significant impact of share vale in most of models as a sign of marketing information ability as a substitutional of other information in Ohlson model which compliance with the first hypothesis **H1** about the direct impact of marketing of firm value.

Furthermore, the highest coefficient value of marketing variable is in moderating impact model by 1.07 referring to the role of moderating variables in augmenting efficiency of marketing investment and therefore firm value. Regarding the moderating variables, ownership concentration

has negative impact on firm value in four models because of bloke shareholders structure where majority of them belong to strategic investor category who have a long-term investment goals in maintaining relative stability at price level and mitigating fluctuations in line with hypothesis **H3**. while agency cost as another moderating variable has a positive impact in two models that supports the view that the outcomes of agency expenditure outweigh the cost incurred, in other words, the market interacts positively with corporate governance tools applied by the company that is in line with hypothesis **H2**. Otherwise, the third moderating variable, earning quality has no impact in all models that leads to reject hypothesis **H4** due to the lack of interest of investors in the quality measures of the published accounting data in the markets under study which is consistent with the statement that the investor is not necessarily an accounting and financial expert. while there is no significant effect of earning quality that could be due to the lack of familiarity of investors with the earning quality measurement and its role in the investment decision which, in turn, may be difficult to calculate depending on its models. Principally, the explanatory power increased significantly in the moderating impact model (67.5%) comparing to direct impact model (57.5%). In relation to control variables, company age affects positively on firm value in four models since mature and older companies in the market have greater competitive advantages as engines of value, whether in terms of performance or in terms of mental image and accumulated value of intangible marketing assets, similarly, company size has positive impact on firm value in three models because of larger companies have greater investment potentials and therefore are more distinguished by the various parties whether in the product market or the financial market.

From comparison point of view, model explanatory power of non-financial model is more than its counterpart in financial sector model due to the difference in competition structure where the supply and demand determinations of financial services are not similar to those applied in other goods and services, and therefore marketing practices differ between the two sides and therefore the relationship between marketing investment and firm value, where firm value of financial firms related to many factors not tested in current research, that corresponds to the third hypothesis **H5**. The same thing with market models, except for the Abu Dhabi market, marketing investment has a significant influence on market value with individuals' differences regarding model explanatory and dependent variables coefficients. In addition, the accounting numbers including the book value and abnormal earning affect the firm value while it differs in the influence of control variables that are limited in size and age, in general, the coefficient of dependent variables as well as the explanatory power varies between the four markets under study due to individual features of financial and marketing environment which corresponds to the fourth hypothesis **H6**.

In general, The statistical results confirm the findings of financial research in relation to residual earning impact on return, in other words, the informative content of current earning about future performance (MIZIK & JACOBSON, 2009), in the same time adding marketing variable promote the valuation model power which is harmonious with other information element in Ohlson model and emphasize the mechanisms of cash flows generation via intangible marketing assets or reducing connected cash flow volatility (SRIVASTAVA et al, 1998). Figure.3 demonstrates the final research model depending on statistical result of hypotheses testing:

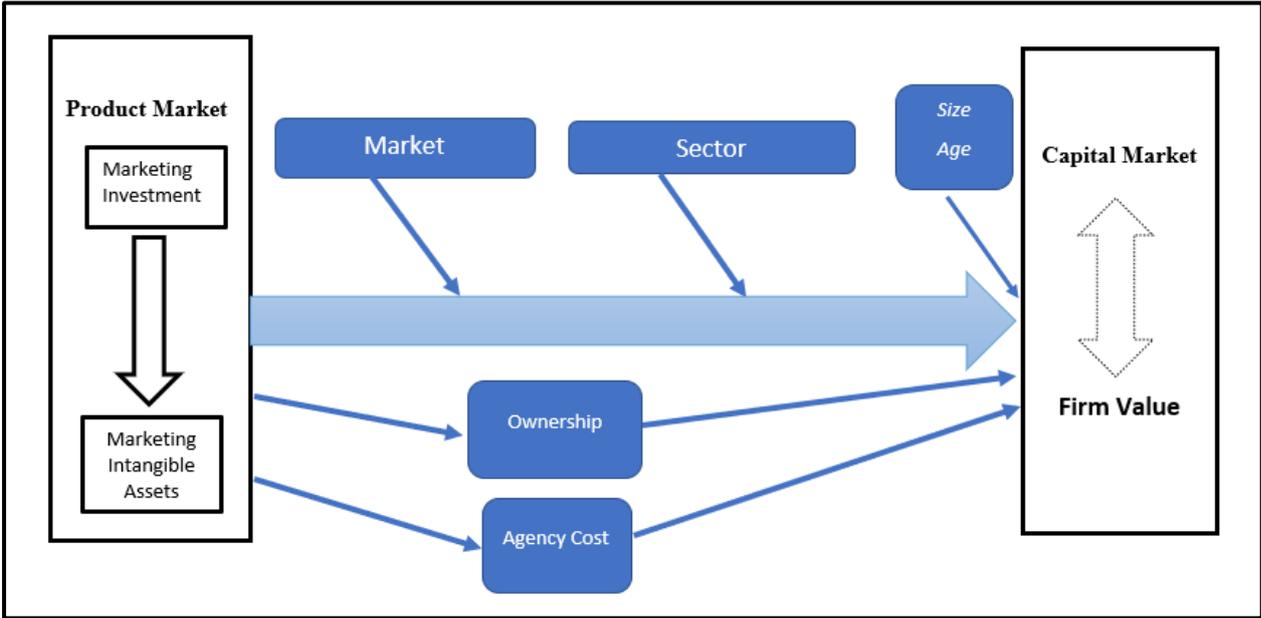


Figure 3. Final statistical model of research

Source: Author’s own construction

3.5. New Scientific Results

Current research contributes to the literature on the value relevance of marketing, and it has provided a new scientific proof of marketing financial effect to a growing research trend of marketing-finance interface. It has also provided valuable insights into current literature of valuation approach. Most importantly, it has addressed marketing-based valuation method in the Arabic emerging markets context. The main new significant results are summarized as follow:

First, as never had done before in Arabic emerging markets, this research tested the role of marketing investment in firm value, on other words, the research shed light to the gap between accounting value and market value of which a large portion is due to the intangible marketing assets which in turn play the role of value creator for shareholders. That is, despite the

characteristics of the Arab Gulf region, it is consistent with the findings of comparable studies in developed markets or in other geographical regions meaning that current research provides an evidence that capital market response to marketing variables is not limited to a specific economy or region.

Second, the results related to moderator variables shows the importance of governance mechanisms in performance enhancing, so these results added a new evidence of governance impact on firm value literature in emerging markets, on the other hand the current research highlighted the moderating role of agency cost and ownership concentration in marketing-firm value relationship meaning that good corporate governance increase the degree of marketing investment efficiency in value creation. In other words, utilizing the agency costs and ownership effect in the proposed valuation model within marketing, governance, and market value trilogy, provide 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.

Third, adding marketing variable promotes Ohlson model power, this result indicates the informative content of marketing application beside the traditional accounting figures as the promising approach of firm valuation which can be a valid indicator for investment portfolio diversification on the one hand and effective investment decisions on the other hand. Besides that, the current study provides a new evidence of based residual earning valuation model validity in assessing the market value as an adequate alternative to other valuation models.

Fourth, the research has provided a new accounting - marketing model to understand the interaction between product market/ customer and capital market/ investor through the role of marketing as a convenient channel to transfer the impact between both sides and to bridge the practical and scientific gap between marketing and finance. That 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, which could be a first step in developing a deeper understanding of the interaction between customer and investor behaviour.

Finally, the research has provided a new evidence about the role of marketing intangible assets in firm value, this result contributes to bridge the gap between accounting and market value. In other words, using marketing parameters helps in rationalizing the valuation process and compensates the lack of information about intangible assets in the published financial statements.

4. CONCLUSION AND RECOMMENDATIONS

The main purpose of current research is to explore and examine the role of marketing in firm value in four Arabic emerging markets, the direct impact and indirect (moderating) were tested as well as the difference between sectors and markets were investigated, the data analysis results revealed several conclusions which were presented in this session in addition to research implication and some recommendations.

4.1. Concluding Remarks

Depending on theoretical and practical parts, some remarks points are summarized as follow:

- The marketing concept and related implications have experienced a shift toward a new marketing-finance interface, where the marketing activities contribute to firm value enhancement as well as shareholders and potential investors have become among the key stakeholders of marketing.
- Theoretically, the interaction between marketing and firm value can be discussed under some financial and marketing theories and assumptions such as resource-based theory and signal theory, essentially, marketing elements affect the company cash flow from valuation model point of view, which in turn affects firm value by direct way through intangible marketing assets or indirect way through tangible assets.
- Marketing impact on firm value includes two main sides, the first is the impact of marketing intangible assets such as brand equity, customer equity and R&D equity, while the second is the impact of marketing element such as a new product introduction, advertising and other marketing mix elements.
- market-based assets or marketing intangible assets contribute to value creation because they meet the four specifications: convertible, scarce, immutable and no perfect substitute.
- Emerging markets are characterized by having large margins of growth and opportunity from one side and from relatively high risks from another, from marketing point of view, there are some noticed criteria in these markets such as more price sensitivity customer, more costly information, high variance among market segments, high level of competition, and brand investment horizons.
- The performance of four Arabic emerging markets under study is largely consistent with that of other emerging counterparts during the study period.
- The ratio of the market value to the book value ranges between 1.25 and 2.24 times with an average of 1.57 times in the markets under study which is close to international average at 1.7

times and more than emerging markets and middle East markets at 1.3 and 1.1 respectively that refers to the role of intangible assets in value creation in the markets under study.

- The sample companies enjoy a high level of ownership concentration measured by ownership of the largest twenty shareholders, which amount to 99% in some companies with an average at 42%.
- Marketing affects significantly on firm value in direct way through Ohlson model calculation and controlled by size.
- Ownership concentration and agency cost moderate (leverage) the impact of marketing on firm value controlled by size and age, where the model explanatory power increased notably. Moreover, the benefits of agency mechanism outweigh the costs incurred while block shareholders mitigate volatility in stock prices to explain the negative effect of ownership concentration.
- Earning quality has no moderating impact in study model due to the lack of interest of investors in the quality measures of the published accounting data in the markets under study.
- Market response to marketing investment in non-financial companies differs from financial companies based on explanatory power and variables coefficients.
- Market response to marketing investment in each market differs from other markets based on explanatory power and variables coefficients due to individual features of customer reaction and thus the investor responses.
- investors respond positively to accounting information based on book value and abnormal earning coefficients in all models that might be an initial signal of efficiency level in the market under study.

4.2. Business Implementations

The results enrich the debate about the reliability of marketing actions for management, the results of research provide a new evidence of marketing role in value creation so managers and decision makers should deal with marketing expenditure as a long term investment on shareholders' value as well as the new trend of marketing augments the organizational power of marketing function as a strategic department responsible for managing and developing the value for both the investor and the customer. That is, marketing objectives must be considered when working to improve accounting performance. Furthermore, the research findings support the importance of marketing intangible assets in investment decision since the investor picks up this signal and reacts accordingly, in other words, marketing actions are translated into financial outputs. Briefly, marketing applications can be an effective tool to obtain a satisfactory evaluation on the market.

4.3. Research limitations

Due to the lack of specialized data bases for the dissemination of marketing information like those in developed markets, the research did not cover all possible marketing variables. On the other hand, the Arab markets are not deep enough in terms of the listed companies' number and eligible companies for listing in the Emerging Markets Index, which led to reducing the number of sample items in general and the small number of companies belonging to some sectors, which affected the possibility of making more detailed comparisons.

4.4. Recommendations

Arabic markets need a specific plan to increase the number of listed companies, and to increase the economic role of capital markets. Furthermore, information is the blood of financial market, so listed companies need to increase the kind and intensity of published information by adopting a disclosure policy that includes data for intangible assets valuation on the one hand and the size of the investment in marketing activities on the other hand, which ensures a permanent flow of information to rationalize investment decisions and avoid tremors in the markets. In the same context, encourage the establishment of specialized institutions to collect and publish this type of information.

For future research, by using the interdisciplinary methodology more marketing variable could be studied in the light of marketing- firm valuation relationship as well as considering other variable as a proxy of firm value or performance could enhance the analysis results. Also, it is strongly recommended to involve more sectors in the future research to shed light on the differences resulting from the marketing practices and their financial impacts. Further, the study of customer-investor interaction would be a fit behavioral approach to promote marketing understanding from a behavioral point of view. Fifth, more empirical studies are requested regarding the new role of digital marketing strategies in firm performance in capital market. Finally, other variables could be studied as a moderator to demonstrate the integrative relationship between marketing and other corporate practices in order to create and maximize value.

5. SUMMARY

Nowadays, capital market occupies a prominent place in the economies on the one hand and as a place to evaluate the company's success and management efficiency on the other hand. So, maximizing firm value presents the core objective of all functions within the company including marketing, which has been absent for years from corporate finance literature because of the lack of conviction in the role of marketing measurements for investors from the point of view of the decision-makers. This has changed radically considering the modern trend of marketing depending on the interaction between marketing and financial elements in the framework of the firm's value. A new research stream has addressed marketing- finance interface as cornerstone for a new vision of marketing role as a strategic function that takes into account the interests of shareholders. In general marketing elements have direct impact on firm value through intangible market-based assets or indirect impact through tangible assets based on accounting performance indicators, market-based assets could contribute to bridging the gap between accounting book value and market value.

Through the literature, several variables were used to measure the marketing in both marketing assets side such as customer or brand equity or from marketing action side such as advertising and marketing spending, knowing that most research have been conducted in developed markets, that was an important motivation of researcher to analysis other markets practically Arab emerging markets to investigate the marketing impact on firm value with the aim of testing the previous studies findings in the Arab environment, where four Arabic emerging markets were selected namely, Qatar, Dubai, Abu Dhabi, and Kuwait depending on the converging characteristics of these markets, whether in terms of size and depth of the market or in terms of the economic and social structure in general. Moreover, the research investigates the moderating impact of some governance quality specifically, agency cost measured by assets utilization ratio, ownership concentration measured by the sum of the largest 20 shareholders ownership, and earning quality measured by accruals to cash flows model. In addition to that, the research tests the difference between financial and non-financial sectors regarding the marketing impact on firm value as well as the difference between market individually.

The research sample was chosen based on specific criteria from the four markets constituents of FTSE Emerging Index which includes the most liquid companies in the markets under study, 36 companies of 44 were selected for time series of 10 years between 2010 and 2019.

The main model of research was designed based on Ohlson model of valuation which anticipate the share price in terms of book value, abnormal earning as a proxy of accounting information and other unobservable information which presented by marketing investment calculated by marketing expenses deflated by total assets, the model controlled by some variables such as size, age, free operational cash flow ratio, and change in oil price as a proxy of economic situation since all markets under study located in oil countries. The secondary data was collected depending on Thomson Reuters DataStream, official markets websites, Arab monetary fund, and Arab Federation of Exchanges.

The research objectives involve identifying the effect of marketing in firm value, determined the role of moderating effect of agency cost, ownership, and earning quality in marketing-firm value relationship, and determining the sector and market difference.

To achieve the research objective and hypotheses testing, panel data method has been applied because it considers both the time series dimension and the sectional dimension of individual units which applicable for research data.

The results of this research revealed the following main findings:

- ✓ The average of market to book value ratio was 1.57 times in Arabic markets under study which is close to international average at 1.7 times and more than emerging markets and middle East markets at 1.3 and 1.1 respectively that refers to the role of intangible assets in value creation in the markets under study.
- ✓ Marketing investment affects significantly on firm value in Arabic emerging markets under study direct way through Ohlson model calculation and controlled by size.
- ✓ Ownership concentration and agency cost moderate (leverage) the impact of marketing on firm value controlled by size and age, where the model explanatory power increased notably. Moreover, the benefits of agency mechanism outweigh the costs incurred while block shareholders mitigate volatility in stock prices to explain the negative effect of ownership concentration.
- ✓ Market response to marketing investment in non-financial companies differs from financial companies based on explanatory power and variables coefficients.
- ✓ The markets under study different individually regarding the impact of marketing on firm value due to individual features of customer reaction and thus the investor responses.
- ✓ the results confirmed the informative content of marketing application beside the traditional accounting figures as the promising approach of firm valuation which can be a valid indicator for investment portfolio diversification on the one hand and effective investment decisions on the other hand.

The results of research can be applied in business practices by providing a new evidence of marketing role in value creation, so managers and decision makers should deal with marketing expenditure as a long-term investment on shareholders' value as well as the new trend of marketing augments the organizational power of marketing function as a strategic department responsible for managing and developing the value for both the investor and the customer.

Finally, to enhance the situation of Arabic markets toward the role of intangible assets in value creation, some recommendations have been suggested, furthermore, the research suggest some topics for future research in a framework of interdisciplinary methodology to enrich the marketing – finance theory.

6. LIST OF PUBLICATIONS

Journal Publications

MOUSA, M., SAGI, J., & ZEMAN, Z. (2021). Brand and Firm Value: Evidence from Arab Emerging Markets. *Economies* 2021, 9, 5. <https://doi.org/10.3390/economies9010005> **quarter 2**

MOUSA, M., Nosratabadi, S SAGI, J., & Mosavi, A. (2021). The effect of marketing investment on firm value and systematic risk. *J. Open Innov. Technol. Mark. Complex.* 2021, 7(1): 64 **quarter 1.**

MOUSA, M., SAGI, J., & ZEMAN, Z. (2019). Factors influencing the investor's decision in Syrian initial public offering market: Survey study. *Journal of Business and Social Review in Emerging Economies*, 5(2), pp. 287-294. DOI: 10.26710/2Fjsee.v5i2.814

AL HUMSSI, A., ZETOUN, M.S., MOUSA, M., & AKHMEDOV, F. (2018). Can banks in Syria survive the risks of the current ongoing crisis. *Journal of Competitiveness in the global world: economic, science, Technology*, pp. 10-14.

MOUSA, M., SAGI, J., & ZEMAN, Z. (2018). The impact of marketing on share performance: evidence from Syria. *Journal of Advanced Management Science*, 6(3), pp. 165-168.

MOUSA, M., SAGI, J., & ZEMAN, Z. (2018). The Impact of credit and capital risks on the banking Performance: Evidence from Syria. *Journal of Management*, 32 (1). pp. 107-112.

MOUSA, M. (2014). Degree of Commitment to Implement the International Principles of Corporate Governance at the Private Banks in Syria. *Albaath University Journal*, 36(9), pp. 191-220.

Conference proceedings

MOUSA, M., SAGI, J., & ZEMAN, Z. (2019). The relationship between governance, transparency and capital market performance in Visegrad group., Gödöllő, Hungary. In: Fodor, Zita (szerk.) Book of Abstracts of the 9th International Conference on Management: "People, Planet and Profit: Sustainable business and society": 9th ICoM 2019, Gödöllő, Hungary: Szent István Egyetemi Kiadó, pp. 75-75.

MOUSA, M., SAGI, J., & ZEMAN, Z. (2018). Market power of stocks and its impact on market performance: evidence from Budapest stocks exchange. In: Anita, Tangl (ed.) Business and Management Sciences: New Challenges in Theory and Practice. Conference on the 25th Anniversary of the Doctoral School of Management and Business Administration: Book of Abstracts, Gödöllő, Hungary: Szent István Egyetem Egyetemi Kiadó, pp. 86-86. also In: Illés, Bálint Csaba (ed.) Proceedings of the International Conference "Business and Management Sciences: New Challenges in Theory and Practice" Volume I., Gödöllő, Hungary: Szent István Egyetemi Kiadó, pp. 261-268.

MOUSA, M., SAGI, J., & ZEMAN, Z. (2017). The impact of marketing on investor's decision in IPO's market: Evidence from Syria. 7th International conference on management ICOM, Nitra Slovakia: Slovak University of Agriculture in Nitra, pp. 846-854.

MOUSA, M., SAGI, J., & ZEMAN, Z. (2018). The role of marketing in capital market: a review study and proposed theoretical framework. In: Bylok, F.; Albrychiewicz-Słocińska, A.; Cichoblazinski, L. (eds.) 8th International Conference on Management: Leadership, Innovativeness and Entrepreneurship in a Sustainable Economy: Book of Proceedings. Czestochowa, Poland: Wydawnictwo Wydziału Zarządzania Politechniki Czestochowskiej, pp. 433-437.

In progress:

MOUSA, M., SAGI, J., & ZEMAN, Z. (2019). The role of marketing on stocks performance: evidence from Arabic gulf listed companies on emerging market index. SSEM Euro Conference: Emerging Market Economies, Milano, Italy.