"Using managerial and market tools to measure the impact of acquisition operations on firm performance"

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NUMBER OF REFERENCES	NUMBER OF FIGURES	NUMBER OF TABLES
41	2	12

BUSINESS PERSPECTIVES

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USING MANAGERIAL AND MARKET TOOLS TO MEASURE THE IMPACT OF ACQUISITION OPERATIONS ON FIRM PERFORMANCE

Abstract

This paper aims to investigate and evaluate the effect of pre- and post-mergers and acquisitions (M&A) on non-financial Egyptian firms' performance using a balanced scorecard (BSC), as well as to empirically investigate the impact of M&A on shareholder wealth using cumulative abnormal returns (CAR). The paper is limited to non-financial firms listed on the Egyptian stock market (EGX) that have undergone acquisition operations during the time specified in the paper from 2003 to 2016. Four perspectives for the BSC are assessed before and after the acquisition operations to evaluate performance. The final sample for the BSC appraisal is 12 companies for 12 acquisition operations, while the sample for shareholders' wealth consists of 10 companies. The difference in the sample is that some companies became out-of-counter after the M&A process. Cumulative differential analysis and graph observation show preferable values for post-acquisition operations versus pre-acquisition operations for the three non-financial perspectives, namely Customer satisfaction, Learning and growth, and Internal business process, and for two financial perspectives, namely Sales and Profitability. The results show preferable values for pre-acquisition operations for two financial perspectives: Liquidity and Market value. The T-test results failed to establish a relationship between M&A and enhancing BSC perspectives. The results could not find any evidence to support the impact of pre-post M&A on the shareholders' wealth. The relationship between BSC before and after M&A and CAR is tested using a multiple regression model. The results show a significant relationship only between shareholder wealth and the Learning and growth perspective.

Keywords	acquisitions, balanced scorecard, cumulative abnormal return, shareholder wealth, Egyptian market
JEL Classification	E44, F36, L25

INTRODUCTION

Recent rapid changes in the global business environment force shareholders and managers to make quick decisions to cope with the global technological and strategic changes. Mergers and Acquisitions (M&A) is a vital way to restructure corporations and adjust their property and industrial structure to increase competitive advantage through improving overall performance. M&A have become an inevitable choice for efficient resource allocation and enterprise development under the economic globalization (Chen, 2013). Companies started to combine together to avoid numerous risks evolved nowadays.

Traditionally, ratio analysis was a commonly used tool for firm' performance evaluation. Financial ratios measure the inside operation efficiency and profitability and ignore non-financial perspectives, systematic risk and long-term performance, focusing only on short-term performance. Accordingly, organizations started to use strategic managerial tools such as balanced scorecard (BSC) that take both financial and non-financial perspectives for more consistency and completeness, and to capture an overall view for the organization's value-creat-

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ing activities. BSC measures organizations' performance in four perspectives such as financial, customer, internal processes, and learning and growth (Chen, 2013; Kaplan & Norton, 1992).

Abnormal return (AR) can be used to explain the returns on a given portfolio or security over a period of time that can be either positive or negative according to the security or portfolio performance over a specified period (Vazirani, 2012; Daadaa, 2016). To have a better evaluation of the degree of shareholder wealth before and after M&A transaction market's reaction, cumulative abnormal returns (CAR) are considered a real economic indicator. CAR is an asset pricing model used to assess M&A through testing market efficiency.

The main objective of this paper is to investigate and evaluate the effect of pre- and post-acquisitions on the performance of non-financial Egyptian firms using BSC, as well as to empirically investigate the impact of M&A on shareholder wealth using CAR.

1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

M&A are explained by a plenty of explanatory theories. In the efficient market, the stock prices respond to the company's announcement (Fama & French, 1969), and thus, an action like M&A would have a great impact on the company's value. In an efficient capital market, M&A can led to either "wealth maximization" or "wealth minimization" through the finding of positive AR or negative AR around announcement days for the company acquirer (Chen et al., 2011). AR is useful in measuring the performance of securities or portfolio when compared to the overall market. AR helps in analyzing portfolio management performance based on risk-return basis to determine to what extent investors are compensated for the selected risk level (Rani et al., 2015).

From the human side, M&A challenges and management problems can be explained by six theories (anxiety theory, social identity theory, acculturation theory, role conflict theory, job characteristics theory, and organizational justice theory), according to Seo and Hill (2005) who integrated those theories into one conceptual framework to explain behavioral and psychological effects for M&A. Anxiety theory is concerned with employees' uncertainty and the impact of the M&A decision on their careers. Social identity theory describes how employees' distinctive characteristics and attributes affect the M&A adoption. Acculturation theory is concerned with the differ-

ences in the cultures emerged from combination between different companies. Both role conflict and ambiguity job characteristic theories define the M&A post actions regarding the role of expectation ambiguity and the reflection in job characteristics and work environments respectively. Organizational justice theory also describes the fairness of employees' treatment after M&A.

In last four decades, numerous studies have been directed towards M&A. Several studies have been proposed and studied the economic impact of M&A on both performance evaluation and shareholder wealth. Most researchers have examined a critical question regarding whether the merging or acquiring company achieves the expected results or not. Different measures have been postulated for analyzing M&A success both in the short and long term.

Among the studies examining the impact of M&A on the firms' performance in developing countries is Lois et al. (2021) who used the profitability ratios to study the impact of M&A on 50 post-mergers' performance to compare pre- and post-merger firm profitability around M&A announcements of Greek listed firms in the short and long run. They found no improvement in the short-run performance and decrease in the long-run performance during the financial crisis. They could not find an impact for the method of payment, target's production line, or the internationalization of M&A. In the same line, Grigorieva and Petrunina (2015) examined the performance of 80 M&A operations in emerging capital markets based on the economic profit model, and they found a declining value post-M&A for combining firms.

In contrast, these three studies concluded that the acquiring firms' overall performance had improved in the post-merger years (Rahman et al., 2021; Abdel-Azim et al., 2019; Duppati & Rao, 2015). Rahman et al. (2021) studied the willingness of 34 emerging country firms to engage in cross-border M&A through acquiring firms from developed countries for market penetration purposes. Abdel-Azim et al. (2019) examined the impact of domestic M&As on firm performance to determine M&As success and failure factors (i.e., weight efficiency, difference in efficiency, return on assets and return on equity) in 24 acquisition operations in EGX. Both Rahman et al. (2021) and Abdel-Azim et al. (2019) used two-stage analysis, data envelopment analysis (DEA) and Tobit regression. Duppati and Rao (2015) compared the long-term performance of 30 Indian firms with prior findings from the USA.

Deng and Yang (2015) compared cross-border M&A with emerging market firms in the nine highest ranked emerging economies such as Brazil, India, Mexico, Indonesia, China, Russia, Thailand, South Africa, and Turkey. They concluded that the predictive power of the M&A was affected by the government and the environmental factors.

BSC model is still under study for many researchers for strategic management evaluation. Among the researchers examining the impact of M&A on performance using BSC is Kaplan (2020) who declared in his latest article that BSC was a logic step for managers to implement before the M&A operation to highlight the difficulties and communicate the new strategy to lower-level employees. Kaplan stated that implementing BSC after M&A adds value to customers because the created BSC model for the new integrated company breaks down different cultures and strategies between the acquirer and target companies, which affects the success of the M&A process.

Alasfour (2020) examined a case study to understand Management Accounting and Control Systems (MACS) such as BSC and Budget in an Islamic bank after it was acquired by a conventional bank in Kuwait. The results showed that the parent bank expertise in BSC had benefited the acquired bank through achieving the targeted financial and non-financial objectives. BSC helped the acquired bank to reduce the conflict in Shariah, market and social aspects before the M&A operation.

Zhang (2019) used BSC to evaluate the performance of Wanda Group's acquisition of legendary film industry. He concluded that the merger was not successful through analyzing the four perspectives of the BSC model. Zhang declared that from the financial perspective, both solvency and profitability deteriorated after the merger, as well from the learning and growth perspective.

Hristov and Chirico (2016) discussed the use of BSC in measuring M&A performance through a questionnaire for 83 experienced Italian managers in companies involved in M&A operations. Their results showed conflicted opinions between respondents who were convinced with the idea of BSC implementation versus others who were not. The respondents agreed on the use of BSC in extraordinary and large operations only.

Of the studies that have historically displayed the impact of M&A on shareholder wealth using economic measures is the Ghatak (2017) study, in which a short event window of 61 days was examined for a sample of 8 target companies, 8 combined companies and 52 acquiring companies in IT Industry during the period from 2006 to 2015. The results showed that the shareholders of the acquiring company, target company and combined company achieved positive AR from the M&A activity.

Tianqi (2016) analyzed seven different studies that examine the shareholders' wealth using CAPM model in the period from 1980 to 2002. The results showed that M&A created shareholder wealth for the target bank, while the M&A impact on the acquiring bank is insignificant.

Busra (2015) analyzed the causes of shareholder value creation in Turkey's market in 2013 for overall market that undergone acquisition operations. Busra used CAR to measure AR of shareholder value for acquiring companies. The results show that the acquirer company loses value in the short run and increases in the long run.

Cortes et al. (2015) analyzed the impact of M&A on shareholders' wealth for both acquiring and

acquired airline companies in Latin America during the period from 1996 to 2013. The results showed that after the announcement of M&A, the AR of some selling companies was statistically significant.

Diaw (2015) investigated the effect of the M&A announcement on shareholder wealth in European banking industry from 1997 to 2008 for 97 European banks. The results showed that CAR created value for both acquirer and target shareholders for companies undergone M&A.

Rani et al. (2015) examined the impact of pre-post M&A on stock returns for 305 Indian firms that have undergone M&A during the period of January 2003 to December 2008 using 14 financial ratios and abnormal return. The results indicated that there was a positive AR for new acquiring companies.

Sachdeva et al. (2015) evaluated the impact of the M&A announcement on the shareholder value creation for 85 Indian acquiring companies listed on Bombay Stock Exchange (BSE) from 1991 to 2010. They used both CAR and AR. The results showed that during the announcement period, there was significant positive shareholders' wealth for acquiring companies. While after the announcement period, there was a decline in shareholder wealth for acquiring companies. Based on the above results of the study, M&A did not have significant impact on the shareholders' value.

Priyanka and Parvinder (2014) examined the effect of M&A announcements on the stock prices using CAR for both target and acquirer 37 publicly companies in the Asia-Pacific region during the period from May 2013 to September 2013. The results indicated that CAR of the target companies was statistically significant, while that of the acquirer companies was not statistically significant.

Bashir et al. (2011) evaluated the impact of 45 Pakistani M&A companies on shareholder wealth value using CAR over the period from 2004 to 2010. The results indicated that target companies achieved insignificant decrease in value, while acquirer companies achieved insignificant increase in value.

Rani et al. (2011) investigated AR to 57 domestic and foreign Indian pharmaceutical companies that undergone M&A from 2001 to 2007. The results showed a positive significant relationship between AR, CAR and shareholder wealth of Indian pharmaceutical companies on their M&A foreign target, while M&A activities in domestic pharmaceutical industry did not create shareholder wealth.

Maditinos et al. (2009) examined the impact of post M&A on the Greek shareholder market value and investigated the effect of M&A on the performance of Ioniki-Laiki and Pisteos banks (the merged banks). The data consisted of 122 daily closing transactions covering the period from 4-1-99 to 30-6-99. The study used the market index model that showed the relationship between the return on the market, return on a stock, and CAPM. The results showed an increase in the acquirer's shareholder performance following M&A.

Choi and Russell (2004) examined 171 construction companies using CAR. The results indicated that shareholders of acquiring companies achieved positive CAR compared to the other companies' transactions. The results showed that the acquiring companies had a positive impact on market returns.

Diaz et al. (2004) investigated the impact of M&A on 1,629 banks in the European Union between financial and non-financial banks using CAR through panel data methodology from 1993 to 2000. The results indicated that M&A was more significant for financial banks than for non-financial banks.

Frank and Sam (2004) examined the stock financial performance of 97 target companies and 111 acquirer companies in the UK construction sectors involved in M&A from 1996 to 2001. The results indicated that UK construction companies that undergone M&A create an increase in CAR and AR for shareholders for both target and acquirer companies. The results showed a positive shareholder wealth related to UK companies that undergone M&A.

Tse and Soufani (2001) investigated the impact of both acquired and acquiring companies on share-

holder wealth in two different merger activity eras from 1990 to 1996 using CAR for 124 UK M&A transactions. The results showed that the returns for the acquiring companies at the first periods from 1990 to 1993 were negative, while the returns for the acquiring companies at the second periods from 1994 to 1996 were positive. The results also indicated that the shareholders' wealth for acquirer was negative, while it was positive for target companies.

According to the previously mentioned studies, the economic measures, including AR, are used to calculate the abnormal rate of return around the M&A announcements window, which reflects the shareholders' reactions and, accordingly, their wealth in return.

Some of the literature discussed the impact of applying the BSC on the shareholders' wealth as a connection between inside and outside dimensions. While Crabtree and DeBusk (2008) provided a strong evidence that BSC increased shareholder returns, both Christesen (2008) and Lusk et al. (2006) did not find supported results between them. Lusk et al. (2006) recommended measuring the performance by market measures such as Capital Asset Pricing Model (CAPM).

According to the previously discussed literature, the following hypotheses are developed to be tested:

H_1: *There is a significant positive relationship between M&As and financial performance.*

H_2: *There is a significant positive relationship between M&As and customer satisfaction.*

H_3: *There is a significant positive relationship between M&As and learning and growth performance.*

H_4: *There is a significant positive relationship between M&As and internal business process performance.*

H_5: *There is a significant positive relationship between M&A and increased shareholder wealth.*

H_6: *There is a significant positive relationship between BSC perspectives and shareholder wealth.*

2. METHOD

The paper follows the deductive approach, which is composed of two parts: the first is a theoretical study and literature review used to examine the impact of M&A on the performance and shareholder wealth in the Egyptian market. For the purpose of this paper, data was collected from relevant journal articles, books, and historical studies. These sources provided the background information required to identify gaps in literature and develop the collection of data. The second part is an empirical part, which consists of three sections. First, using BSC to evaluate the effect of pre- and post-acquisitions on non-financial Egyptian firms' performance; second, to empirically investigate the impact of M&A on shareholders' wealth using CAR, and third, to test the relationship between BSC perspectives of pre-post M&A and CAR 60 and 120 using a multiple regression model for acquiring companies.

The paper is limited to non-financial firms listed on the Egyptian stock market (EGX) that were involved in acquisition operations within the time period 2003 to 2016. There were no merger operations in Egypt within the research period time. The firm population in Egypt involved in acquisition operations consists of 215 firms. The paper examines a year before and a year after M&A. According to the data collected, there was no full acquisitions for Egyptian non-financial firms happened within the period 2017–2019, and the year 2020 is not taken because the annual reports for the year after i.e., 2021 are not issued yet.

All acquirer companies that did not follow the Egyptian Accounting Standards (EAS) No. 29 and that were not fully controllers are excluded from the paper sample, as well as all cross border and unlisted Egyptian companies. The number of listed firms in the EGX out of the acquisition population is 49 firms, including 7 banks, 7 financial firms, 8 firms with insufficient data, and 15 firms with the acquisition percentage less than 30%.

Balanced scorecard (BSC)'s final sample for the paper is 12 firms for 12 operations within the period from 2003 to 2016. Four perspectives (i.e., financial, customer satisfaction, learning and growth performance, and internal business process) are measured for the BSC before and after the acquisition decision by a year to compare the results of the decision to examine the firm performance before and after the acquisition operation. The financial perspective involves sales, liquidity, profitability, and market. The non-financial perspective includes customer satisfaction, learning and growth performance, and internal business process performance.

The sample for CAR model consists of 10 out of 13 companies under study, this difference in the sample is due to the difficulty of data access for some companies that became out-of-counter after the M&A process.

The four BSC perspectives and their variables and measures are illustrated in Table 1.

Table 1. Balanced scorecard perspectives and their measures

Perspective	Variables	Measurement	Formula used
Financial perspective	Sales	Return on Sales	Net income before tax divided by total sales
	Liquidity	Working Capital	Current assets divided by Current Liabilities
	Profitability	Return on Assets: ROA	Net income before tax divided by total assets
	Market value	Stock price	Stock price at year end
Non-financial perspective	Customer satisfaction	Log sales	Log of total sales at year end
	Learning and growth performance	Research and development (R&D) expenses	R&D expenses at year end
	Internal business process performance	Efficiency: asset turnover	Total sales divided by total assets

To define each day's AR, the paper used Yermack (1997)'s modified model of Dodd and Warner (1983)'s event-study methodology as follows:

$$AR_{i,t} = R_{i,t} - R'_{i,t} = R_{i,t} - a'_i - \beta_i Rm_{i,t}, \qquad (1)$$

where $AR_{i,t}$ is the abnormal return on a stock defined as a return for company i and acquisition date t, $R_{i,t}$ is the actual return of the stock, $R'_{i,t}$ is excepted return of the stock, $Rm_{i,t}$ is the yield on Index 30 for EGX, i – companies, t – days, and a'_i and β_i are market model parameters.

$$C\!AR_i = \sum_{t=\tau_1}^{\tau_2} AR_{i,t}, \qquad (2)$$

$C\!AR_i$ – cumulative abnormal returns: use daily ARs over an event period, where the event window is the interval (τ_1, τ_2) – 120 working days, i.e. 60 days before and 60 days after the date of the event (M&A date), and 240 working days, i.e. 120 days before and 120 days after the date of the event (M&A date). The exact date of M&A is not disclosed in the Egyptian market and the only available source is for the month and the year of the operation. The data is collected from Egypt for Information Dissemination (EGID).

3. RESULTS

The BSC perspectives for each acquisition operation results for each company under study are summarized in Appendix A.

The results for Olympic Group show an extreme increase in post-M&A in learning perspective, a slight increase in internal, market, and customer perspectives, and a decrease in sales perspective. The results for Orascom Telecom show an extreme increase in post M&A in sales perspective, a slight increase in liquidity, profitability, market, and customer perspectives. The rest perspectives remained approximately unchanged. The results for Sharm Dream show a slight increase in profitability and learning perspectives, and a decrease in sales, liquidity, market, and customer perspectives, while the rest perspectives remained approximately unchanged. The results for Egyptian Tourism show an extreme increase in post M&A in learning perspective, while the rest perspectives remained approximately unchanged.

The results for Orascom Development show an extreme decrease in post M&A in learning perspective, a slight decrease in market perspective, and

approximately no change in the rest perspectives. The results for Orascom Construction show an increase in learning perspective, a slight increase in sales, liquidity, market, and customer perspectives, and approximately no change in the rest perspectives. The results for Telecom Egypt show an increase in liquidity, customer, and internal perspectives and a decrease in profitability, market, and learning perspectives. The results for Suez Cement show an increase in learning perspective and a slight decrease in market perspective, while the rest perspectives remained approximately unchanged. The results for Oriental Weavers show a decrease in learning perspective, a slight decrease in market perspective, while the rest perspectives remained approximately unchanged.

The results for Alexandria Portland show an increase in sales, profitability, and learning perspectives and a decrease in liquidity and market perspectives. The results for Sperea Misr show an increase in both liquidity and customer perspectives and a decrease in profitability, market, learning and internal perspectives. The results for National Navigation show an increase in liquidity, market, and customer perspectives, and a decrease in learning and internal perspectives.

The results for the financial perspective are shown in Figure 1, compromising the four main financial variables: sales, liquidity, profitability, and market value. For more illustration see Appendix B.

Sales increased in 9 firms and decreased in 4 firms. Sales increased in Orascom Telecommunication by 8.689866, in the Egyptian firm for tourism by 0.32672, in Orascom Construction by 0.401534, in Telecom Egypt by 0.000792411, in Suez Cement by 0.401899, in Oriental weavers by 0.007545, in Alexandria Portland by 0.34149, and in Sperea Misr by 0.052092677. Sales decreased in Olympic group by –0.8444, in Sharm Dreams by–0.33876, in Orascom Development by–0.01692, and in National navigation by –0.000792411.

Liquidity increased in 7 firms and decreased in 6 firms. Liquidity increased in Olympic group financial by 0.053275, in Orascom Telecommunication by 0.620022, in Orascom construction by 0.633414, in Telecom Egypt by 0.074983, in Sperea by 0.933339816, and in National navigation by 0.759010307. Liquidity decreased in Sharm dreams by –0.712725, in Egyptian company for tourism by –3.654202, in Orascom Development by –0.174247, in Suez Cement by –0.585069, in

Financial perspective of pre- and post-M&A across the sample
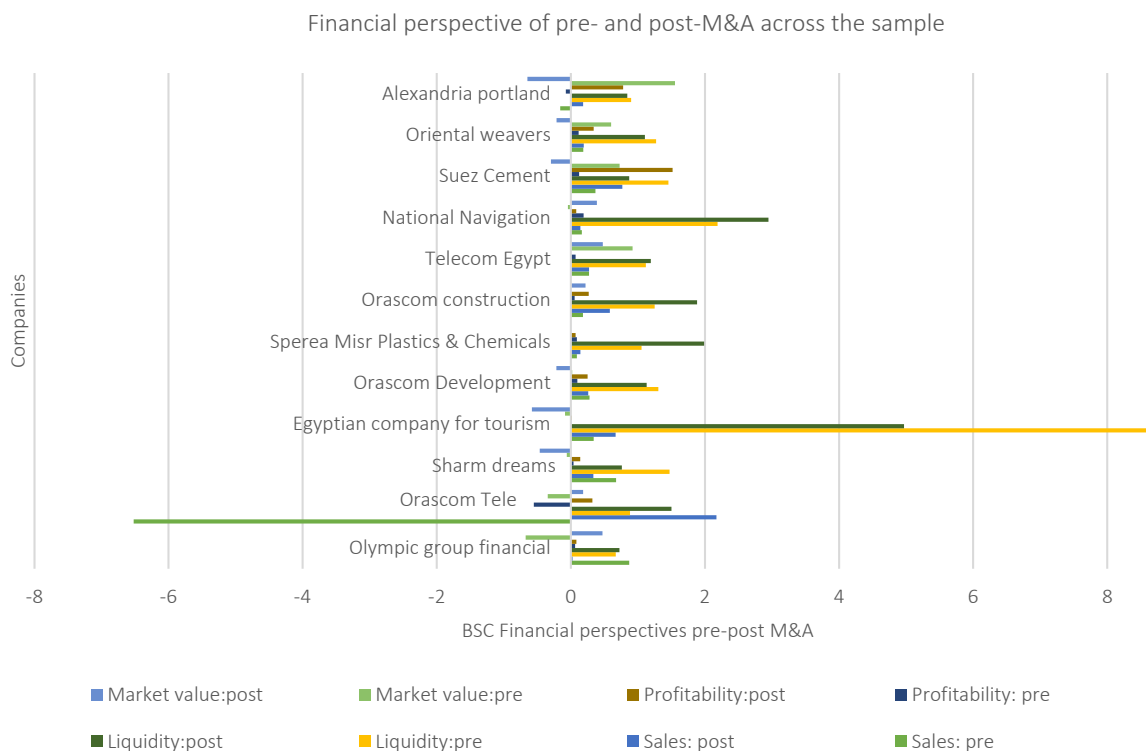
Figure 1. Pre- and post-M&A financial perspective across the sample

Oriental weavers by –0.167923, and in Alexandria Portland by –0.056909.

Profitability increased in 9 firms and decreased in 3 firms. It increased in Olympic group financial, Orascom Telecommunication, Sharm dreams, Egyptian company for tourism, Orascom Development, Orascom construction, Suez Cement, Oriental weavers, and Alexandria Portland by 0.01779513, 0.87444717, 0.10196728, 0.00838808, 0.15241631, 0.21010857, 1.42326288, 1.39329691, 0.22560683, and 0.85566256, respectively. Profitability decreased in 3 firms: Telecom Egypt (2006) by –0.0707014, Sperea Misr by –0.018570104, and National Navigation by –0.11004826.

Market price increased in 4 firms and decreased in 8 firms. Market price increased in Olympic group, Orascom Telecommunication Orascom construction, and National Navigation by 1.146052364, 0.528098592, 0.225851391, and 0.4314206, respectively. Market price decreased in the rest of the sampled firms. It decreased in Sharm dreams, Egyptian company for tourism, Orascom Development, Telecom Egypt, Suez Cement, Oriental weavers, and Alexandria Portland by –0.403048528, –0.492087912, –0.236461538, –0.444109244, –1.023390477, –0.814284484, and –2.201656911, respectively.

The results for the non-financial perspective are illustrated in Figure 2, compromising the three main non-financial variables: customer, learning and growth, and internal business process. For more illustration see Appendix B.

Customer perspective increased in 9 firms and decreased in 3 firms. The log sales as an indicator for customer satisfaction has decreased in Sharm dreams, Egyptian company for tourism, and Oriental weavers by –0.243322183, –0.053947221, and –0.23634017, respectively. Log sales increased in Olympic group by 1.290510762, in Orascom Telecommunication by 0.689320026, in Orascom Development by 0.158578356, in Orascom construction by 0.336521096, in Telecom Egypt by 0.056892279, in Suez Cement by 0.168432361, in Alexandria Portland by L.E 0.159428112, in Sperea Misr by 0.210344523, and in National Navigation by 0.541468861.

Learning perspective increased in 9 firms and decreased in 3 firms. R&D expenses considered as an indicator for learning and growth performance decreased in 3 firms: Orascom Development by –1200.38, Telecom Egypt by –0.3087, and Oriental weavers by –173.372. R&D expenses increased in 9 firms: Olympic group financial, Sharm dreams, Egyptian company for tourism, Orascom construction, Suez Cement (2005), Alexandria Portland, Sperea Misr, and National Navigation by 11.674, 0.06, 409.022, 9861.83, 7.227, 8.319, 111.103, 5.511, 9861.832, and 8.319, respectively.

Internal business process perspective increased in 4 firms and decreased in 8 firms. The efficiency calculated by asset turnover as an indicator of internal business process performance has increased in Olympic group, Telecom Egypt, Alexandria Portland, and National Navigation by 1.142549, 0.023754, 0.085141, and 7.777531139, respectively. Asset turnover decreased in Orascom

Non-financial perspective across the sample
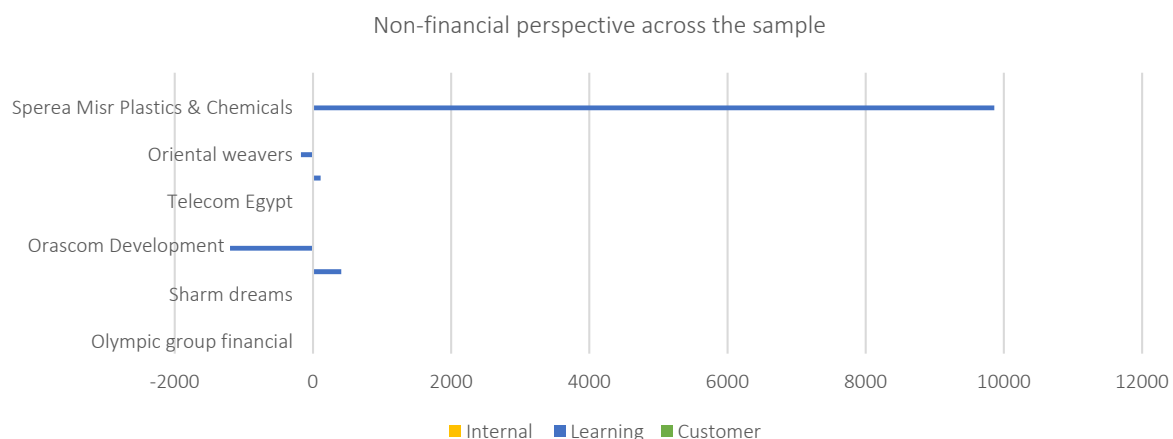
Figure 2. Non-financial perspective across the sample

Telecommunication, Sharm dreams, Egyptian company for tourism, Orascom Development, Orascom construction, Suez Cement, Oriental weavers, and Sperea Misr by –0.02623, –0.02551, –0.00202, –0.03622, –0.08828, –0.13153, –0.24366, and –0.496968281, respectively.

The second part of the BSC model is the t-test in Table 2 (see Appendix C for statistical results). The results for the mean show preferable values for pre-M&A than post-M&A for the four financial perspectives: sales, liquidity, profitability, and market value at the insignificant level. It can be concluded that the mean shows preferable values at the insignificant level for post-M&A than pre-M&A for three non-financial perspectives: customer satisfaction, learning and growth performance, and internal business process performance.

The shareholders' wealth is investigated by 120 days using CAR analysis for the acquiring companies under study after excluding the companies that became out-of-counter after the M&A process. Shareholder wealth is further investigated by 60 days using CAR analysis for the companies under study.

It was expected to find different results between CAR 60 days and CAR 120 days after finalizing M&A for the following reasons; First regarding the narrow window around the M&A event, analyzing 60 days before and after the event detected the acquirer shareholders' expectation for more gain that led to a rapid increase in the stock price for the acquiring company, which would mani-

fest itself in an increase in AR. Second, measuring AR for the first period after announcement does not reflect the main financial problems associated with M&A, i.e. for the 60-day period, the acquirer focuses more on non-financial factors such as marketing and technology to attract more customers and shareholders, but for the wider window the acquiring company starts to focus more on its financial problems. The narrow window would give more accurate and determined information because it excludes other factors affecting the event.

From Table 3 it can be concluded that differential CAR 120 days for the non-financial sector involves three companies with positive differential CAR, which are Olympic Group, Sharm Dreams for Hotels and Suez cement, while in CAR 60 days, only Telecom Egypt has a positive CAR differential.

For further investigation, the *t*-test is used to compare between post-CAR 60 days and pre-CAR 60 days, as well as between post-CAR 120 days and pre-CAR 120 days for acquiring companies. Table 4 shows that post-CAR 60 days are higher than pre-CAR 60 days and that pre-CAR 120 days is higher than post-CAR 120 days. These results are insignificant.

The relationship between BSC pre-post M&A and CAR 60 and 120 is statistically tested by a multiple regression models for the acquiring companies. Appendices D and E illustrate a comprehensive table, including data used for BSC and CAR. The statistical results shown in Appendices F and

Table 2. T-test analysis to differentiate between pre- and post-M&A results for the BSC model

No.	Variables	Period	N	Mean	St. deviation	t-test	Significance level
1	Sales Return on sales	Pre–M&A	12	4.33652	16.74025	0.8130	.432
		Post–M&A	12	.7811049	1.187304		
2	Liquidity Working capital	Pre–M&A	12	2.111261	2.472037	1.7087	.113
		Post–M&A	12	1.340184	1.179421		
3	Profitability Return on assets: ROA	Pre–M&A	12	.5992443	2.254219	0.2696	.792
		Post–M&A	12	.4238291	.5203023		
4	Market value Stock price	Pre–M&A	12	.6484089	1.137638	2.0244	.066
		Post–M&A	12	–.0167042	.4335107		
5	Customer satisfaction Total sales	Pre–M&A	12	2.343781	.7101986	–1.2426	.238
		Post–M&A	12	2.494749	.7907252		
6	Learning and growth performance R&D expenses	Pre–M&A	12	138.9807	380.1726	–0.9032	.384
		Post–M&A	12	834.8566	2721.305		
7	Internal business process performance Efficiency: asset turnover	Pre–M&A	12	.3222482	.381791	–0.4176	.684

Table 3. Differential analysis between CAR 120 days and CAR 60 days for M&A

Non-fiinancial	CAR 120			CAR 60		
	Pre-CAR	Post-CAR	Differential	Pre-CAR	Post-CAR	Differential
Olympic Group	15.39109	18.73101	3.33992092	0.090864	−0.06637	−0.157229867
Orascom Telecom Media & Technology Holding	0.054012	−0.09289	−0.146903002	0.043704	−0.05822	−0.101919847
Sharm Dreams Holding for Tourism & Hotels	−0.09923	0.447326	0.546554121	0.10961	−0.08791	−0.197516259
Egyptian Company for Tourism & Hotels	0.146841	−0.11761	−0.264450924	0.05605	−0.10758	−0.163629132
Orascom Construction Industries	0.543247	−0.90537	−1.44861895	0.325233	−0.35927	−0.68450289
Telecom Egypt	0.36692	−0.41322	−0.780136519	−0.05942	0.003677	0.063100731
Suez Cement	−0.07908	0.120413	0.199495899	0.117355	−0.11254	−0.229897894
Oriental Weavers	−0.04089	−0.19331	−0.152418899	0.108598	−0.16418	−0.272775707
Sperea	0.482336	−0.44017	−0.92250998	0.404552	−0.45912	−0.863676664
National Navigation	0.343097	−0.35123	−0.694331991	0.152305	−0.18672	−0.339023246

Table 4. T-test for comparison between pre- and post-CAR 120 days and pre- and post-CAR 60 days

		Paired sample test							
		Paired differences					t	df	Sig. (2-tailed)
		95% confidence interval of the difference							
		Mean	Std. deviation	Std. error mean	Lower	Upper			
Pair 1	CAR120_post − CAR120_pre	−.10390	1.17071	.29268	−.72772	.51993	−.355	15	.728
Pair 2	CAR60_post − CAR60_pre	.02824	.56216	.14054	−.27131	.32780	.201	15	.843

G found a significant relationship between shareholders wealth and learning and growth perspective only. Stata 14.2 (Statistics Data Analysis 2015) is used to run data for the following multiple regression models:

$$CAR60\_pre_{i,T} = \alpha_0 + \beta_1 Sales\_Pre + \\ + \beta_2 Liquid\_pre + \beta_3 Profit\_Pre + \\ + \beta_4 Market\_Pre + \beta_5 Cust\_pre + \\ + \beta_6 LEARN\_pre + \beta_7 INTERN\_Pre + e, \tag{3}$$

$$CAR60\_post_{i,T} = \alpha_0 + \beta_1 Sales\_Post + \\ + \beta_2 Liquid\_post + \beta_3 Profit\_Post + \\ + \beta_4 Market\_Post + \beta_5 Cust\_post + \\ + \beta_6 LEARN\_post + \beta_7 INTERN\_Post + e, \tag{4}$$

$$CAR120\_pre_{i,T} = \alpha_0 + \beta_1 Sales\_Pre + \\ + \beta_2 Liquid\_pre + \beta_3 Profit\_Pre + \\ + \beta_4 Market\_Pre + \beta_5 Cust\_pre + \\ + \beta_6 LEARN\_pre + \beta_7 INTERN\_Pre + e, \tag{5}$$

$$CAR120\_post_{i,T} = \alpha_0 + \beta_1 Sales\_Post + \\ + \beta_2 Liquid\_post + \beta_3 Profit\_Post + \\ + \beta_4 Market\_Post + \beta_5 Cust\_post + \\ + \beta_6 LEARN\_post + \beta_7 INTERN\_Post + e, \tag{6}$$

where $CAR60\_pre_{i,T}$, i.e. 60 working days before the M&A date, $CAR60\_post_{i,T}$, i.e. 60 working days after the M&A date, $CAR120\_pre_{i,T}$, i.e. 120 working days before the date of M&A, $CAR120\_post_{i,T}$, i.e. 120 working days after the date of M&A, *Sales_Pre, Liquid_pre, Profit_Pre, Market_Pre, Cust_pre, LEARN_pre,* and *INTERN_Pre* represent the BSC perspectives: sales, liquidity, profitability, market value customer, learning and growth, and internal business process respectively a year before the M&A, *Sales_Post, Liquid_post, Profit Post, Market_Post, Cust_post, LEARN_post,* and *INTERN_Post* represent the BSC perspectives: sales, liquidity, profitability, market value customer, learning and growth, and internal business process respectively a year after the M&A, *i* – companies, *t* – Days, and *e* – error.

4. DISCUSSION

BSC model is still under study for many researchers for strategic management evaluation. Although it is clear that BSC is important in pre-M&A strategy setting, there is still a debate about its role in post-M&A value adding. The results from BSC model are classified into two parts; The first part relates to the graph observation and the cumulative differential analysis in Appendices A and B that show preferable values for post-acquisition operations than pre-acquisition operations for two financial perspectives related to customer reaction, namely sales and profitability, and show preferable values for pre-acquisition operations versus post-acquisition operations for two financial perspec-

tives related to the shareholder reaction such as liquidity and market value. The results show preferable values for post-acquisition operations than pre-acquisition operations for three non-financial perspectives: customer satisfaction, learning and growth performance, and internal business process performance. The results partially accept H_1, and accept H_2, H_3 and H_4. BSC model t-test results reject H_1 and do not support H_2, H_3, and H_4.

Regarding the literature for wealth effects, the general conclusion indicates that takeovers generate ARs for the shareholders of target companies. There is still a strong debate among researchers about the acquiring company wealth gains that will benefit to enhance or destroy shareholder wealth. Regarding

Table 5. Summary for results and their relation to literature

The paper's hypotheses	Method used	Expected sign	Results' sign	Result	Proponents from literature	Opponents from literature
H_1: There is a significant positive relationship between M&As and financial performance	Graph observation and cumulative differential analysis (Appendices A and B)	+ preferable values for post-acquisition operations than pre-acquisition operations	+ for Sales and profitability; – for Liquidity and market value	Partially accept H_1		
	T-test (Table 3 and Appendix C)		Insignificant N/A	Reject H_1		
H_2: There is a significant positive relationship between M&As and customer satisfaction	Graph observation and cumulative differential analysis (Appendices A and B)	+ preferable values for post-acquisition operations than pre-acquisition operations for the 3 non-financial perspectives	+ preferable values for post-acquisition operations than pre-acquisition operations for the 3 non-financial perspectives	Accept H_2, H_3 H_4	Kaplan (2020), Alasfour (2020), Grigorieva & Petrunina (2015)	Rahman et al. (2021), Abdel-Azim et al. (2019), Zhang (2019); Hristov & Chirico (2016), Duppati & Rao (2015)
H_3: There is a significant positive relationship between M&As and learning and growth performance						
H_4: There is a significant positive relationship between M&As and internal business process performance	T-test (Table 3 and Appendix C)		Insignificant N/A	Reject H_2 H_3 H_4		
H_5: There is a significant positive relationship between M&A and the increase in shareholder wealth	Differential analysis (Table 2)	+	Insignificant N/A	Reject H_5	Diaw (2015); Rani et al. (2011); Maditinos et al. (2009); Choi & Russell (2004); and Frank & Sam (2004)	Sachdeva et al. (2015), Eije & Wiegerinck (2010)
	T-test (Table 4 and Appendices D and E)					
H_6: There is a significant positive relationship between BSC perspectives and shareholder wealth	Multiple regression model (Appendices F and G)	+	Significant positive relationship between the shareholder wealth and the learning and growth perspective	Partially accept H_6	Crabtree & DeBuskto (2008)	Christesen (2008), Lusk et al. (2006)

the CAR results, the differential analysis could not support H_5, which stated that "There is a significant positive relationship between M&A and increased shareholder wealth". H_5 is rejected for both CAR 120 days and CAR 60 days for the acquiring companies, since the results are insignificant.

Under *t*-test analysis, which is used to compare between post-CAR 60 days and pre-CAR 60 days and between post-CAR 120 days and pre-CAR 120 days for the acquiring companies, H_5 is reject-ed for both CAR 120 days and CAR 60 days as the results are insignificant.

The multiple regression model used to test the relationship between BSC pre-post M&A and CAR 60 and 120 proved that there was a significant relationship between shareholder wealth and the learning and growth perspective. The results do not find any evidence for the other perspectives; then H_6 is rejected. The summary for paper results and their connection to literature is illustrated in Table 5.

CONCLUSION

The results for the BSC model show that M&A enhances the internal management, production and marketing processes through learning and internal business efficiency and, as a result, increases sales and profitability through customer satisfaction. In contrast, CAR results showed no enhancement in the acquiring value after the M&A. The shareholder value declines due to the method used in the acquisition process, be it asset or stock acquisition. Liquidity is affected by the purchase cost or cash released for acquiring the target in case of asset acquisition. The market value measured by the stock price is sensitive to methods of payment for both the acquirer and target in the short run. The results show a significant positive relationship between shareholder wealth and learning and growth perspective. This enhances the idea that shareholders care about R&D and new technology that may result from M&A.

It is recommended for future research to measure the value creation for both the acquirer and the target in the long run and take into account other external factors, add cross-border comparative studies, and use other managerial accounting tools to assess the M&A performance, such as Theory of Constraints (TOC) and Economic Value Added (EVA).

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APPENDIX A

Table A1. Pre- and post-M&A BSC perspectives

No.	Name of a company acquirer	Pre-M&A							Post- M&A						
		Financial				Customer	Learning	Internal	Financial				Customer	Learning	Internal
		Sales: return on sales	Liquidity: working Capital	Profitability ROA	Market value: stock price	Log total sales	R&D expenses	Efficiency: asset turnover	Sales: return on sales	Liquidity: working Capital	Profitability ROA	Market value: stock price	Log total sales	R&D expenses	Efficiency: asset turnover
1	Olympic group financial	0.869384	0.670807	0.064169018	−0.6741	2.029603	0	0.07380978	0.024988	0.724082	0.08196415	0.471954	3.320114	11.674	1.21635889
2	Orascom Tele	−6.51933	0.881218	−0.55288244	−0.345	2.055875	0	0.08480668	2.170539	1.50124	0.32156473	0.183099	2.745195	0	0.05857729
3	Sharm dreams	0.67404	1.472278	0.039045271	−0.06077	1.709448	0.146	0.05792724	0.335282	0.759554	0.14101255	−0.46381	1.466126	0.206	0.03241583
4	Egyptian company for tourism	0.340513	8.624242	0.006385627	−0.08791	1.504335	74.335	0.01875294	0.667234	4.97004	0.01477371	−0.58	1.450388	483.357	0.016734
5	Orascom Development	0.277313	1.305027	0.097233619	0.020462	2.609385	1388	0.35062781	0.260389	1.130781	0.24964993	−0.216	2.767964	187.623	0.31440873
6	Orascom construction	15537.15	6.504495	8.074131156	1.035647	3.047712	19.168	0.00051967	4.274642	1.654791	0.2790438	0.710723	2.702983	9881	0.01644824
7	Telecom Egypt	0.271182	1.118466	0.071106095	0.921	0.922383	1.1397	0.26220843	0.271974	1.193449	0.00040469	0.476891	0.979275	0.831	0.28596281
8	Suez Cement	0.366579	1.454832	0.123428882	0.726939	2.937663	0	0.33670443	0.768479	0.869763	1.5167258	−0.29645	3.106096	111.103	0.20517782
9	Oriental weavers	0.184935	1.272495	0.115915245	0.600882	3.204615	212.57	0.62678979	0.192479	1.104573	0.34152208	−0.2134	2.968275	39.198	0.38313354
10	Alexandria portland	−0.15861	0.898328	−0.07549362	1.553542	2.439846	13.685	0.47598425	0.182885	0.841419	0.78016894	−0.64811	2.599274	19.196	0.56112495
11	Sperea Misr Plastics & Chemicals	0.08978	1.054561	0.089509335	0	2.146503	8.93	0.99699027	0.141872	1.987901	0.07093923	0	2.356848	0.208	0.50002199
12	National Navigation	0.162954	2.187147	0.189081831	−0.0436	2.576811	1.582155	1.16034139	0.141194	2.946157	0.07903357	0.387821	2.34261	1.2355	0.55975331

APPENDIX B

Table B1. Differential analysis for post- and pre-M&A BSC perspectives

Company	Sales: return on sales	Liquidity: working Capial	Profitability ROA	Market value: stock price	Customer	Learning	Internal
Olympic group financial	−0.844395674	0.053275206	0.017795133	1.146052364	1.29051076	11.674	1.142549113
Orascom Tele	8.68986557	0.620021913	0.874447174	0.528098592	0.68932003	0	−0.026229391
Sharm dreams	−0.338757893	−0.712724567	0.101967282	−0.40304853	−0.24332218	0.06	−0.025511409
Egyptian company for tourism	0.326720399	−3.654201758	0.008388081	−0.49208791	−0.05394722	409.022	−0.002018939
Orascom Development	−0.016924127	−0.174246844	0.152416308	−0.23646154	0.15857836	−1200.377	−0.036219084
Orascom construction	0.401533628	0.633413683	0.210108573	0.225851391	0.3365211	7.227	−0.088282894
Telecom Egypt	0.000792411	0.074983385	−0.070701406	−0.44410924	0.05689228	−0.3087	0.02375438
Suez Cement	0.40189928	−0.585068805	1.393296915	−1.02339048	0.16843236	111.103	−0.131526615
Oriental weavers	0.007544605	−0.167922598	0.22560683	−0.81428448	−0.23634017	−173.372	−0.243656254
Alexandria portland	0.341489831	−0.056908756	0.855662562	−2.20165691	0.15942811	5.511	0.085140701
Sperea Misr Plastics & Chemicals	0.052092677	0.933339816	−0.018570104	0	0.21034452	9861.832	−0.496968281
National Navigation	−0.021760045	0.759010307	−0.11004826	0.4314206	0.54146886	8.319	7.777531139
Cumulative	9.000100662	−2.277029019	3.640369088	−3.28361615	3.0778868	9040.6903	7.978562467

APPENDIX C

Table C1. Statistical analysis for BSC analysis

T-test

		Mean	N	Std. deviation	Std. error mean
		Paired Samples Statistics			
Pair 1	Sales	1195.4397	12	4309.14655	1195.14222
	Sales1	.7811	12	1.18730	.32930
Pair 2	Liquidity	2.1113	12	2.47204	.68562
	Liquidity1	1.3402	12	1.17942	.32711
Pair 3	Profit	.6703	12	2.22500	.61710
	Profit1	.4238	12	.52030	.14431
Pair 4	Market	106.3231	12	156.13575	43.30427
	Market1	69.0400	12	89.03597	24.69413
Pair 5	Customer	439.4251	12	526.33655	145.97949
	Customer1	778.3529	12	771.65479	214.01853
Pair 6	Learning	138.9807	12	380.17261	105.44091
	Learning1	834.8566	12	2721.30473	754.75413
Pair 7	Internal	.3222	12	.38179	.10589
	Internal1	.3624	12	.40402	.11206

Paired sample correlations		N	Correlation	Sig.
Pair 1	Sales & sales1	12	.884	.000
Pair 2	Liquidity & liquidity1	12	.833	.000
Pair 3	Profit & profit1	12	−.077−	.803
Pair 4	Market & market1	12	.550	.052
Pair 5	Customer & customer1	12	.547	.053
Pair 6	Learning & learning1	12	−.081−	.793
Pair 7	Internal & internal1	12	.612	.026

Paired sample test

		Paired differences					t	df	Sig. (2-tailed)
		Mean	Std. deviation	Std. error mean	95% confidence interval of difference				
					Lower	Upper			
Pair 1	Sales − sales1	1194.65857	4308.09692	1194.85110	−1408.69834−	3798.01549	1.000	11	.337
Pair 2	Liquidity − liquidity1	.77108	1.62710	.45128	−.21217−	1.75432	1.709	11	.113
Pair 3	Profit − profit1	.24643	2.32357	.64444	−1.15769−	1.65055	.382	11	.709
Pair 4	Market − market1	37.28308	130.47228	36.18650	−41.56053−	116.12669	1.030	11	.323
Pair 5	Customer − customer1	−338.92785−	654.03670	181.39714	−734.15827−	56.30258	−1.868−	11	.086
Pair 6	Learning − learning1	−695.87587−	2778.06130	770.49557	−2374.64151−	982.88977	−.903−	11	.384
Pair 7	Internal − internal1	−.04014−	.34651	.09611	−.24953−	.16926	−.418−	11	.684

APPENDIX D

Table D1. Results for BSC and CAR pre-M&A

Company	Sales: return on sales	Liquidity: working Capital	Profitability ROA	Market value: stock price	Log total sales	R&D expenses	Efficiency: asset turnover	CAR 60 pre M&A	CAR 120 pre M&A
Olympic group financial	0.869384	0.670807	0.064169	−0.6741	2.029603	0	0.0738098	0.090864	9.6310162
Orascom Tele	−6.51933	0.881218	−0.5528824	−0.345	2.055875	0	0.0848067	0.043704	−0.0309629
Sharm dreams	0.67404	1.472278	0.0390453	−0.06077	1.709448	0.146	0.0579272	0.10961	−0.08022
Egyptian company for tourism	0.340513	8.624242	0.0063856	−0.08791	1.504335	74.335	0.0187529	0.05605	−0.09447
Orascom Development	0.277313	1.305027	0.0972336	0.020462	2.609385	1388	0.3506278	0.325233	−0.4574181
Telecom Egypt	0.271182	1.118466	0.0711061	0.921	0.922383	1.1397	0.2622084	−0.05942	−0.31694
Suez Cement	0.366579	1.454832	0.1234289	0.726939	2.937663	0	0.3367044	0.117355	−0.33439
Oriental weavers	0.184935	1.272495	0.1159152	0.600882	3.204615	212.57	0.6267898	0.108598	−0.11682
Sperea Misr Plastics & Chemicals	0.08978	1.054561	0.0895093	0	2.146503	8.93	0.9969903	0.404552	−0.22841
National Navigation	0.162954	2.187147	0.1890818	−0.0436	2.576811	1.582155	1.1603414	0.152305	−0.167438

APPENDIX E

Table E1. Results for BSC and CAR post-M&A

Company	Sales: return on sales	Liquidity: working Capital	Profitability ROA	Market value: stock price	Log total sales	R&D expenses	Efficiency: asset turnover	CAR 60 post M&A	CAR 120 post M&A
Olympic group financial	0.024988	0.724082	0.0819642	0.471954	3.320114	11.674	1.2163589	−0.06637	18.73101
Orascom Tele	2.170539	1.50124	0.3215647	0.183099	2.745195	0	0.0585773	−0.05822	−0.0928907
Sharm dreams	0.3352821	0.759554	0.1410126	−0.46381	1.466126	0.206	0.0324158	−0.08791	0.447326
Egyptian company for tourism	0.667234	4.97004	0.0147737	−0.58	1.450388	483.357	0.016734	−0.10758	−0.11761
Orascom Development	0.260389	1.130781	0.2496499	−0.216	2.767964	187.623	0.3144087	−0.35927	−0.9053717
Telecom Egypt	0.271974	1.193449	0.0004047	0.476891	0.979275	0.831	0.2859628	0.003677	−0.41322
Suez Cement	0.768479	0.869763	1.5167258	−0.29645	3.106096	111.103	0.2051778	−0.11254	0.120413
Oriental weavers	0.192479	1.104573	0.3415221	−0.2134	2.968275	39.198	0.3831335	−0.16418	−0.19331
Sperea Misr Plastics & Chemicals	0.141872	1.987901	0.0709392	0	2.356848	0.208	0.500022	−0.45912	−0.44017
National Navigation	0.141194	2.946157	0.0790336	0.387821	2.34261	1.2355	0.5597533	−0.18672	−0.351235

APPENDIX F

Table F1. Testing the relationship between BSC perspectives and CAR 60&120 pre-M&A

Equation	Obs	Parms	RMSE	"R-sq"	F	P
CAR60preMA	10	8	.1127108	0.8461	1.571047	0.4428
CAR120preMA	10	8	3.277514	0.7536	.873915	0.6284

	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
CAR60preMA						
salesPRE	.269718	.1697992	1.59	0.253	-.460869	1.000305
LiquidityPRE	-.0054581	.017193	-0.32	0.781	-.0794336	.0685174
ProfitabilityPRE	-3.100673	2.005728	-1.55	0.262	-11.73062	5.529276
MarketPRE	.0128412	.1073988	0.12	0.916	-.4492584	.4749407
CUSTOMERPRE	.0763196	.0776568	0.98	0.429	-.2578107	.4104499
LEARNPRE	.0001858	.000098	1.90	0.198	-.0002357	.0006073
INTERNALPRE	.5476884	.2612149	2.10	0.171	-.5762286	1.671605
_cons	-.1059572	.1694006	-0.63	0.596	-.8348291	.6229147
CAR120preMA						
salesPRE	-1.679926	4.937587	-0.34	0.766	-22.92465	19.56479
LiquidityPRE	-.5291517	.4999545	-1.06	0.401	-2.680282	1.621979
ProfitabilityPRE	28.98797	58.3245	0.50	0.668	-221.9621	279.938
MarketPRE	-5.344431	3.123046	-1.71	0.229	-18.78181	8.09295
CUSTOMERPRE	-.016163	2.25818	-0.01	0.995	-9.732329	9.700003
LEARNPRE	-.002664	.0028488	-0.94	0.448	-.0149213	.0095933
INTERNALPRE	-6.703738	7.595862	-0.88	0.471	-39.38609	25.97862
_cons	4.295504	4.925995	0.87	0.475	-16.89934	25.49035

APPENDIX G

Table G1. Testing the relationship between BSC perspectives and CAR 60&120 post-M&A

Equation	Obs	Parms	RMSE	"R-sq"	F	P
CAR120postMA	10	8	2.2004	0.9701	9.281623	0.1007
CAR60postMA	10	8	.2138302	0.5084	.2955002	0.9063

	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
CAR120postMA						
salesPOST	8.400483	2.222387	3.78	0.063	-1.161676	17.96264
LiquidityPOST	-1.727498	.9795686	-1.76	0.220	-5.942242	2.487246
ProfitabilityPOST	1.426259	2.468047	0.58	0.622	-9.19289	12.04541
MarketPOST	-10.95669	4.471878	-2.45	0.134	-30.19763	8.284245
CUSTOMERPOST	-6.115773	2.108401	-2.90	0.101	-15.18749	2.955943
LEARNPOST	.0085063	.0098041	0.87	0.477	-.0336774	.05069
INTERNALPOST	36.24273	6.716521	5.40	0.033	7.343869	65.14159
_cons	.5085268	3.167594	0.16	0.887	-13.12053	14.13758
CAR60postMA						
salesPOST	.2017846	.2159669	0.93	0.449	-.7274459	1.131015
LiquidityPOST	-.039999	.0951924	-0.42	0.715	-.4495789	.3695809
ProfitabilityPOST	.1565418	.2398396	0.65	0.581	-.8754048	1.188488
MarketPOST	-.0320655	.4345676	-0.07	0.948	-1.901859	1.837728
CUSTOMERPOST	-.2168369	.2048899	-1.06	0.401	-1.098407	.6647333
LEARNPOST	.000258	.0009527	0.27	0.812	-.0038413	.0043573
INTERNALPOST	.4503102	.6526974	0.69	0.562	-2.35802	3.25864
_cons	.0908398	.3078201	0.30	0.796	-1.233603	1.415283