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What drives mergers and acquisitions waves in developing countries? Evidences from Iranian banking industry

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Abstract

Many Middle-East countries, like Iran, have dynamic banking industries and have observed merger and acquisitions (M&A) waves. M&A waves are usually defined in the developed world context and some of their main drivers were identified as: market timing, environment's shocks, merger manias, government regulation and regulatory, and technological changes. It has been discussed that merger waves and their reasons are among the ten most important unsolved mysteries in the field of finance (Brealey and Myers, 1991, p. 923), and as a result of this, it was not possible to completely clarify the reasons behind emerging M&A waves, especially in developing countries; for this reason in these countries, there is a different story. In the past thirty years, the Iranian banking industry witnessed two waves of M&A. The later one commenced in 2011 and is still in progress. This study investigates the reasons behind emerging M&A waves in the industry by using the Exploratory Factor Analysis (EFA). The data for this study were collected from 113 bank managers. The results show that Iranian banking industry M&A wave is driven by three main forces/factors: macro, industrial, and corporate, which come from: I) Develop the business and acquire competitive advantage, II) Stakeholders' pressures, III) Government pressure, IV) Lack of banking licenses, and V) Organize the money market by government.

Keywords: Mergers and Acquisitions (M&A), banking industry, financial sector, Iranian economy, government policy and regulation, middle-east.

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Introduction

It has been discussed that Middle-East countries from their banks to their stock markets have been closely considered (Ben Hamida, 2014; Chowdhury, 2015; Zulkhibri and Ghazal, 2014). In the country's financial system, banking systems are the most important part, especially in emerging and developing markets (Beck, 2010). In the 19th century, reforms were witnessed in the Middle-East banking area which is totally based on Western models (Kuran, 2005), but in this days and age, the condition has changed and in comparison with developed world, the Middle-East banks have their own different reaction to the economic phenomena. In this regard, Chowdhury (2015) shows that the Dubai debt crisis had an *insignificant* effect on bank performance and Dymski (2002) challenges the current hypotheses that global Merger and Acquisitions (M&A) are efficiency-driven and the U.S. cases could become the paradigm for all other nations' banking systems.

The proliferation of financial institutions and private banks disarranged Iranian financial sector equilibriums'. The sector has witnessed unprecedented growth in co-operative credit unions, currency exchanges companies, and banks in less than a decade. Iranian government by legislative enactment has tried to reorganize the sector, and therefore, it has focused on the money market efficiency. The result was a wave of M&A; nevertheless, there is no in-depth analysis to explain the reasons behind this phenomenon. In fact, the Iranian merger patterns are untouched and the current study is the first study on Iranian M&A waves. To consider this area, this paper was arranged as follows.

In the next section, M&A will be introduced and the related literature will be discussed and the general impact of M&A on corporations will be argued. Thereafter, M&A waves and their drivers and motivations will be explained. Then, the current situation of the Iranian financial sector (with focus on Iranian banking system) will be considered and the history of the Iranian M&A waves briefly examined. Next, the hypotheses will be presented; and finally, the empirical results of the research will be shown.

Background and Literature Review

M&A is an important phenomenon of modern economies, and it is a popular form of corporate development. Sometimes, these strategies are used by the governments to integrate financial market, organize money market, and/or implement privatizations. Generally, economic theories have provided many possible reasons for why mergers have emerged; these reasons include efficiency-related reasons (which often involve economics of scale and scope or synergy), attempts to create a market power, taking advantage of opportunities for diversification (Andrade et al., 2001). In general, researches have shown both positive and negative impacts of M&A. The study of Akbulut and Matsusaka (2010) is one of the few examples which have been stated; announcements that return from "4,764" mergers over "57" years are significantly positive or Huck et al. (2007) investigated the merger paradox and found out that merged firms produce significantly more output than their competitors. Rahman and Limmack (2004) examined the financial performance of a sample of "97" quotes acquired and "117" targets involved in acquisitions and discovered that Operating Cash Flow (OCF) performances were significantly improved for the combined firms, since the acquisitions. However, few of the studies in "1980s" showed minor positive impacts from such deals (Hoshino, 1982; Mueller, 1985; Ravenscraft and Scherer, 1987). Banks' incentives to M&A were also driven by financing cost advantages related to their size, especially by the gains from the optimal adjustment of reserve holdings due to the presence of an internal money market (Carletti et al., 2007). Also, M&A between large banks leads to polarization of the banking system into large and small institutions and Vives (2001) discusses *liberalization* process and information technology affects the consolidation waves.

M&A Waves and their Drivers

The concept of M&A waves are proven, and there is agreement among the experts. The first and second M&A waves' studies (Markham, 1955; Nelson, 1895; Stigler, 1950; Thorp, 1941) and the other studies have reported a wave-like pattern in the mergers. In fact, it is necessary to develop structural models for predicting M&A waves (Barkoulas et al., 2001), and to capture M&A waves, *Markov regime–switching* and *sine–wave models* have been used. Since "1890s", six cycles of M&A waves have appeared and their important issues are presented: monopoly through horizontal mergers, oligopoly through vertical integrations, conglomerate, hostile takeovers and leveraged deals, specific industries, such as banking, health care, defense, and technology, and finally, reallocation of assets on emerging countries/ sectors.

M&A waves are formed due to variety of reasons, some of which have been proven while the others have been evolving. One of the most obvious features of M&A is that they come in waves that are correlated with increases in share prices and price/earnings ratios (Gugler et al., 2012). Also, Harford (2005) alludes to market timing, combination of industry shocks (economic, regulatory or technological), and reaction of firms to the environment's shocks or regulators' contemporaneousness, peaks in partial-firm acquisitions for cash, and high stock market valuations. On the other hand, shocks to an industry's economic, technological, and regulatory environment have been discussed (Gort, 1969; Mitchell and Mulherin, 1996). It is clear, moreover, that aggregate merger waves could be due to industry cluster shocks either technological or due to changes in the business environment. According to Vives (2001), regulators have traditionally tried to restrict competitions in the [financial] sector in order to avoid excessive risks. Rhodes-Kropf et al. (2005) clearly showed that "misevaluation" affects the level of merger activity. Likewise, managerial timing of market and overvaluations of the firms were discussed (Rhodes-Kropf and Vishwanathan, 2004; Shleifer and Vishny, 2003). Also, prior researches in the M&A domain have shown that other drivers could be as follow: merger manias, overvaluation of stocks, agency costs, monopoly, and competitive positioning. Finally, it is interesting to note that, there are few attempts to develop hypotheses on what drives M&A wave in developing countries.

Case Study: Iranian Banking Industry

A) Iranian Banking System

As stated in the Monetary and Banking Act of Iran (MBAI), the Central Bank of Iran (CBI) is responsible for the design and implementation of the monetary and credit policies due to the general economic policy of the country. Four major objectives of CBI as stated in the MBAI are:

- Maintaining the value of national currency,
- Maintaining the equilibrium in the balance of payments,
- Facilitating trade-related transactions, and
- Improving the growth potential of the country (CBI, 2015).

Over the past three decades, extensive changes, such as establishing private financial institutions, private banks, and shifting from the traditional banking to the technology or internet-based banking have taken place in the Iranian banking system. Although, nowadays, new technologies like internet have become a serious business tool (Megdad, 2009), and they need new kind of strategic planning, especially new ICT coming revelations, such as Internet of Thing (IoT). The minimum initial capital to establish a private bank in Iran is about 4000 billion Rials (equal to 117.5 million USD). To better understanding of the system and its challenges, the 11 main groups of the Iranian banking industry are as shown in Figure 1.

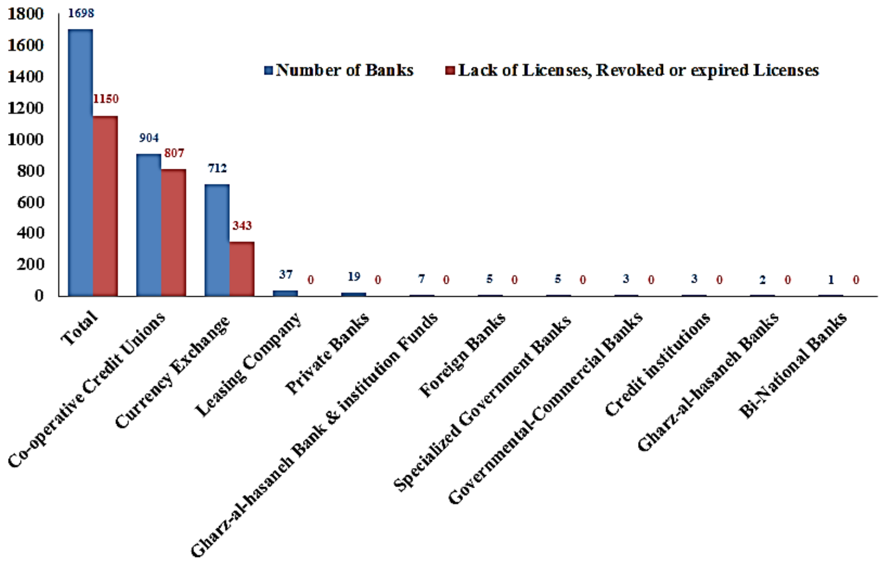

Figure 1. Iranian banking industry

Figure 1 shows that “1698” banks, co-operative credit unions, currency exchange, credit institutions and leasing companies have been activated in the Iranian banking industry. In recent years, the emerged co-operative credit unions were undeniable, and nearly 53 percent of the total Iranian financial sectors have been built based on these unions. To date, nearly “82” percent of these unions are revoked, expired or generally do not have activity licenses (banking licenses from CBI). In addition, 25 percent of the Iranian liquidity is managed in these institutions. Because of the evidences given, there is a big challenge here.

One of the main CBI policies in the recent years is to persuade financial institutes to merge with each other in order to create strong financial institutes, and on the other hand, Iranian financial sector is suffering from lack of a clear law through M&A and knowledge of acquisitions (it means national frameworks to implementing M&A).

B) Iranian Banking Industry M&A Waves

Through analyses of CBI documents and collected announcement since 1966, more than 68 big M&A deals as shown in Figure 2 were recognized. The first M&A wave occurred in the period of 1978 to 1980 and the recent wave started in 2011.

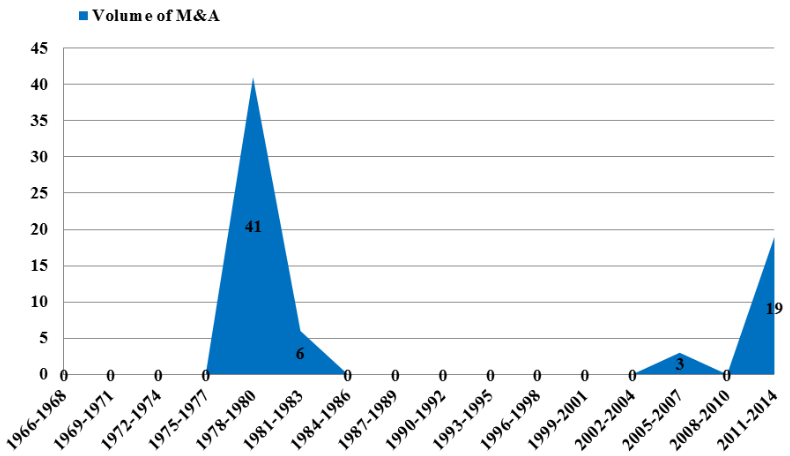

Figure 2. Iranian banking industry M&A waves (1966–2014)

The first wave of Iranian M&A in the banking industry was formed in late 1979, about one year after the Iranian revolution. In these years, the new Iranian government was established and approved of the new institutional law. Many foreign banks were forced to merge with domestic banks to prevent the outflowing of national capital, based on this approach, a wave of M&A emerged. As shown, 10 banks were merged and formed the Mellat Bank or 11 banks were merged and formed the Tejarat Bank. With good judgment, all things considered in these banks stand in the Iranian top 5 banks.

In the last decade, a huge number of financial cooperatives, credit unions, private banks, leasing companies, and even currency exchange companies due to the economic liberalization have been witnessed. In the period of 2005 to 2007, M&A deals had positive impacts on shaping to the 2011 to 2014 wave, because almost all these deals were successful, and a fruitful atmosphere was created for other banks to enter into M&A deals.

The second wave started in 2011, were 25 banks and financial institutions have merged into the license holders in less than two years to re-organize the money market and achieve the competitive advantages. However, several financial institutes have not yet acquired licenses and more M&A are expected and predicted.

Hypotheses

H_1: Stakeholders' pressures to increase performance, improve the strategic position, and achieve an economy of scope/scale through M&A are the reasons of M&A wave.

H_2: Lack of (tried to obtain) a banking license is a reason for M&A wave.

H_3: Government pressures on unqualified institutes to merge or to be closed are reasons of M&A wave.

H_4: Achieving competitive advantage through closure of unprofitable subsidiaries, working with a new strong brand, and exploiting an opportunity to acquire target institutes are reasons of M&A wave.

H_5: Reorganizing the money market through merging the credit institutes and banks is a reason of M&A wave.

H_6: Reduction and dissolution are reasons of M&A wave.

All the mentioned factors could be categorized into Macro, Industrial, and Corporate levels. Government pressure and organizing the money market are placed on the *macro level*. This level is enforced by the global business market and is dictated to the banking industry by the governments. Competitive advantage is placed on the *industrial level*. In this level, threats of new technologies and services from the rivals were witnessed. The pressures of stakeholders to reduce the cost, increase profitability, obtained economics of scope/scale, extension of the synergy and banking licenses are placed in the *corporate level*.

Methodology

The main objective of the current study is to identify the reasons behind the M&A wave in the Iranian banking industry. To achieve this aim, we developed our structure questionnaire based on possible reasons collected through interviews with 30 bank experts (in this study "expert" defined as a person who has more than 15 years of experience in the Iranian banking industry and worked for private and public sector as CEO) and thorough literature reviews related to the topic of the research. Open questions were asked to allow the managers to identify other significant factors. And finally, the questionnaire containing 17 items were developed. The first four questions try to identify the background of the stakeholder's pressures; the next three questions are set to identify the background of lacking banking licenses factor; the next three questions are set to identify the background of the government pressure; the next four questions are set to identify the background of organizing the money market; and finally, three questions set to identify the background of organizing the money market. After approval of experts and data collection, field validity of the instrument was also considered.

Secondly, the questionnaire was distributed in a real sample of 150 managers of CBI, merged banks, and also experts and finally 130 questionnaires were collected. Results were analyzed to identify aspects related to the M&A wave, where 18 identified items were inserted in Exploratory Factor Analysis (EFA) (Cudeck, 2000; Gorsuch, 1988). In general, EFA is an exploratory method used to generate theory (Henson and Roberts, 2006). After determining a structural factor model, the relationships between the factors were inserted in the confirmatory factor analysis to adapt the collected data with the extracted model.

Factor analysis is a family of statistical strategies used to model unmeasured sources of variability in a set of scores (Hoyle, 2000), also, before conducting analysis, descriptive statistics, correlation between items, and the possible violation of the assumption of uni-variant and multi-variant were screened out. The result of data implementation using Confirmatory Factor Analysis (CFA) and principal component extraction and vari-max rotation on 18 identified items demonstrated that the data normally wanted to be on more factors. Kaiser-Meyer-Olkin sampling adequacy criterion was equal to 0/.798 which is higher than 0/7; therefore, the indicator was appropriate (Verbeke and Viaene, 1999). Bartlett test with value of 874/32 was significant at the level of 0.01 and showed the minimum correlation for conducting factor analysis (Dunnill and Massarella, 1969), shown in Table 1.

Table 1. Factor analysis

Items	**Factors**				
	1st	**2nd**	**3rd**	**4th**	**5th**
First factor **Stakeholders and Shareholders' Pressures**					
Stakeholders and shareholders' motivation and pressures expand these M&A	0.754	0.205	0.071	0.121	0.126
Low performance encourages shareholders to merge banks and institutes	0.736	0.257	0.225	0.120	-0.103
Shareholders' tendency toward increasing profits and improving position expands M&A of banks and institutes	0.802	0.023	0.160	0.147	0.280
Acquiring synergies and economics of scope/scale expands M&A	0.676	0.033	0.163	0.286	0.159
Second factor **Lack of Banking Licenses (Permissions of Activities)**					
Lack of permission (Banking Licenses) expands M&A in financial sector	0.305	0.781	0.147	-0.042	0.095

Items	Factors				
	1st	2nd	3rd	4th	5th
Lack of permission for financial activities expands M&A in financial sector	0.089	0.851	0.210	0.161	0.073
Lack of permission for activities in all areas of banking expands M&A in finance sector	0.051	0.803	0.132	0.209	0.241
Third factor **Government Pressure**					
Government pressure on institute and banks expands these M&A	0.207	0.175	0.793	-0.032	0.095
Government threats to close the units expand M&A	0.216		0.831	0.052	0.018
Government pressure on merging ineligible units expand these M&A	0.043	0.092	0.762	0.257	0.224
Fourth factor **Developing the Business and Acquiring Competitive Advantage**					
Accepting the closure subsidiary business without accepting their detriments, and developing new brands expands these M&A	0.414	0.306	-0.102	0.574	0.056
Changing the nature (entity) of the banks or institute and working under the new name/brand for increase profitability expand these mergers	0.019	0.217	0.020	0.801	0.123
Acquiring competitive advantage for banks or institutes expands these M&A	0.324	-0.156	0.256	0.589	0.214
Recognizing opportunities and purchasing/acquire those institutes which have problem (e.g. doesn't have Banking Licenses) and have new technologies to acquiring competitive advantage can be one reason for emersion M&A	0.429	0.054	0.239	0.589	0.141
Fifth factor **Organizing the Money Market**					
The reason for expanding merger is organizing the financial status of the country by government	0.153	0.079	0.196	0.071	0.808
The reason for expanding merger is organizing the money markets of the country by government	0.199	0.061	0.112	0.040	0.791
The reason for expanding merger is organizing the finance and credit institute by government	0.001	0.161	-0.029	0.163	0.602

By using maintenance criteria of these factors which have eigen value greater than one Kaiser Guttman, the five-factor solution provides the clearest extraction. Shared domain related to the items is located in the range of 0.574 to 0.851. The "reduction and dissolution" item from the institutes which expand M&A, did not find appropriate factor loading and was excluded from the analysis. The first factor with the eigen value of 3.018 and variance of 16.76 as the most important extracted factor demonstrated that these items which are placed on this factor correspond to the content of "Stakeholders and Shareholders' pressures". The second factor with eigen value of 46.2 and variance of 13.71 was called "Lack of Banking License" which is related to the permission of activities. The third factor with eigen value of 2.38 and variance of 13.22 was extracted and called "Government Pressures (threatens to close)". The fourth factor with the eigen value of 2.13 and variance of 11.83 was called "Developing the Business and Acquiring Competitive Advantage". Finally, the fifth factor with the eigen value of 2.03 and variance of 11.31 was extracted and called "Organizing the Money Market" regarding the items placed on it. Five extracted factors have the ability to represent 66.84 of variance of the inserted items in the factor analysis, which is a remarkable amount. After being sure about the existence of structural factors among items and multidimensionality of the effective dimensions on M&A wave in Iranian banking industry, the structure was inserted for CFA.

The fit indices suggest that there exist good fit indices for the measurement model. Goodness-of-fit index (GFI) criterion indicates the relative size of the variances and covariance which is explained by the model. GFI value for this model was equal to 0.90. Standardized Root Mean Square Residual (SRMR) was equal to 0.056 and Root Mean Square Residual was equal to 0.059, Normed Fit Index (NFI) was equal to 0.94, Non–Normed Fit Index was equal to 0.97, Incremental Fit Index was equal to 0.98. Finally, to understand how the model merges fitness and saving, Root Mean Square Error of Approximation (RMSEA) was used. The obtained index for the current model was 0.047 with bounds of 0.073 to 0.011, which is a good amount and showed that the measurement error has been controlled. The result of measurement model is shown in Table 2 and Figure 3.

Table 2. Measurement model of variables

Construct	Sign	Items	Factor Loading on the First Level	t	CR	Factor Loading on the Second Level	t
Stakeholders and Shareholders' Pressures	MA7	Stakeholders and shareholders' motivation and pressures	0.78	---	0.849	0.72	5.81
	MA8	Low performance encourages shareholders to merge banks and institutes.	0.71	8.80			
	MA9	Shareholders' tendency to increase benefits and improve position	0.85	8.86			
	MA18	Acquiring synergies and economics of scope/scale	0.71	7.64			
Lack of Banking Licenses (Permissions of Activities)	MA1	Lack of permission	0.72	---	0.878	0.65	5.30
	MA2	Lack of permission for financial activities	0.94	9.78			
	MA3	Lack of permission for doing any activities in all areas of banking	0.85	9.75			
Government Pressure	MA13	Government pressure on banks and institutes	0.80	---	0.857	0.67	6.07
	MA14	Government threat to close units	0.84	10.43			
	MA15	Government pressure to merge unqualified units	0.81	10.08			
Developing the Business and Acquiring Competitive Advantage	MA10	Accepting the closure subsidiary business without accepting their detriments, and developing new brands	0.60	---	0.769	0.73	4.89
	MA11	Changing the nature (entity) of the banks or institute and working under the new name/brand for increase profitability	0.62	6.21			
	MA16	Acquiring competitive advantage for banks or institutes	0.68	6.53			

Construct	Sign	Items	Factor Loading on the First Level	t	CR	Factor Loading on the Second Level	t
	MA17	Recognizing opportunities and purchasing/acquire those institutes which have problem (e.g.; doesn't have Banking Licenses) and have new technologies to acquiring competitive advantage		6.14			
Organizing the Money Market	MA4	Organizing the financial status of the country by government	0.91	---	0.773	0.60	5.41
	MA5	Organizing money markets by government	0.83	7.74			
	MA6	Organizing financial and credit institutes	0.39	4.08			

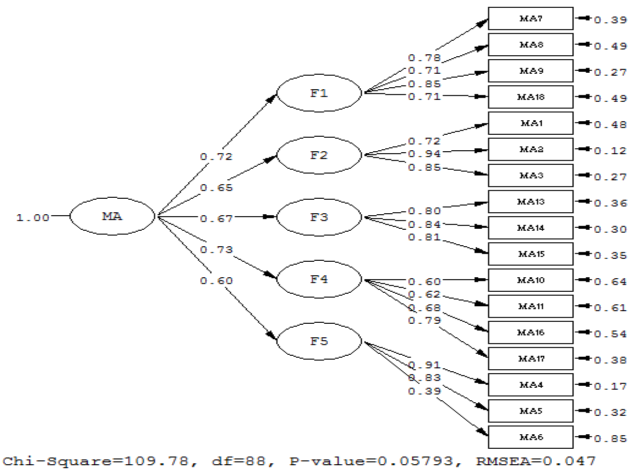

Figure 3. Measurement model of variables

"T" value for each factor loading of each residual indicator with the construct or with its own latent variable is greater than 1.96; therefore, the alignment of the questions of questionnaire for measuring the concept can be shown at this valid stage. After the evaluation process of measurement model, the discriminant validity of the variables of the model should be considered. For this purpose, diagonal matrix should be used and square root of average variance extracted should be placed in its diagonal and the correlation between all latent variables should be given under the diagonal and if the value of square root of average variance extracted should be greater than all the correlation existing in its own row, it can safely be claimed that it has appropriate discriminant validity (Table 3).

Table 3. Latent variables

Latent variables	1	2	3	4	5
Stakeholders and Shareholders' Pressures	0.764				
Lack of Banking Licenses (Permissions of Activities)	0.352	0.841			
Government Pressure (Threatens to Close)	0.457	0.557	0.816		
Developing the Business and Acquiring Competitive Advantage	0.625	0.545	0.625	0.676	
Organizing the Money Market	0.548	0.458	0.457	0.455	0.745

Results

The result showed that significant value of "Developing the Business and Acquiring Competitive Advantage" factor was equal to 0.73 which was statistically significant. Significant value of "Stakeholders and Shareholders' pressures" factor was equal to 0.72 which ranked as the second factor and was close to the first factor and was statistically significant. Thus, the results show that *developing the business and acquiring competitive advantage*, and *stakeholders and shareholders' pressures*, are the most important factors which contribute to the expansion of M&A in Iranian banking industry. Significant value of the *government pressure* was equal to 0.67 and the significant value of the *lack of banking license* was equal to 0.65 which was statistically significant and ranked as the third and fourth factors, respectively. Also, *organizing the money market* with significant value of 0/60 ranked as the fifth factor and identified as one of the factors which contribute to the M&A in Iranian banking industry.

The results of the present study demonstrated that at least five factors contribute to the M&A waves in Iranian banking industry. Thus, the five-factor solution is appropriate to explain the related reasons.

The developing businesses and acquiring competitive advantage from M&A consists of the following parameters:

I) Accepting the closure of subsidiary business without accepting their detriments, and developing new brands,
II) Changing the nature (entity) of the banks or institute and working under the new name/brand for increasing profitability,
III) Acquiring competitive advantage for banks or institutes, and
IV) Recognizing opportunities and purchasing/acquiring those institutes which have problems (e.g. do not have Banking Licenses) and have new technologies to acquire competitive advantage, were identified as the factors which can explain the reason for M&A better than other factors.

Stakeholders and shareholders' pressures, identified as the second factor in this regard, which can be considered as appropriate representatives, are:

I) Stakeholders and shareholders' motivation and pressure,
II) Low performance encourages shareholders to merge banks and institutes,
III) Shareholders' tendency to increase benefits and improve position, and
IV) Acquiring synergies and economics of scope/scale

Conclusion

M&A is an important phenomenon of the modern economies and has been considered as a popular form of corporate development strategies. Nowadays, the concept of M&A waves is proven, and M&A has been formed due to variety of reasons, including market timing, environment's shocks, merger manias, government regulations and regulatory, technological changes, and market valuation. In fact, these drivers are recognized and based on developed countries' economies and the M&A drivers in the developing countries due to their capital markets are fundamentally different, although M&A waves in the developing world and especially Middle East countries, like Iran, hardly ever or never has been studied.

Over the past three decades, extensive changes took place in the Iranian banking industry and especially in the Iranian banking system; the proliferation of financial institutions and private banks disarranged equilibrium of this sector, and the sector witnessed more than 68 big M&A deals (more than 200 takeover shaped in other sector and more than 5 mega merge shaped in the Iranian Ministries), but, incredibly Iranian merger pattern is untouched.

In the current study, we explore two waves of M&A; 1978 to 1980 and a recent wave started since 2011. To understand the reasons behind the recent wave in the financial sector, a questionnaire was designed and finally completed by a sample of 130 managers of CBI, merged banks, and bank experts involved in the second Iranian M&A wave to find what drives the Iranian merger wave. Our research method was EFA and also our framework relies on dedicated factor models.

The results indicate that, "Developing the Business and Acquiring Competitive Advantage" and "Stakeholders and Shareholders' Pressures" were among the two most important factors which contributed to emerging the second M&A wave in the Iranian banking industry. Today, those banks which had successful M&A experience, significantly offer better services than other banks, and it seems they acquire competitive advantages in different ways, such as access to extra resources, improving manpower skilled and acquiring new sorts of information technologies (both soft and hard) through M&A. Also, the main drivers to emerge the M&A wave were associated with the industrial and corporate level forces; such results show that despite international sanctions on this sector, the sector is dynamic.

The dominant method for the M&A payments were stock which were consistent with the *behavioral* approaches of M&A waves. The main reasons of the M&A in the industrial level are regulatory along with the capital liquidity, which is consistent with the *neoclassical* explanations for the merger wave. However, neither neoclassical nor behavioral are able to completely predict and explain the motivations of the Iranian M&A waves.

Despite the fact that the expectance market timing did not play an important role and is not recognized by our experts, because market timing is an investment strategy, which is not systematic, and is not applicable in Iran due to medium/low market liquidity.

Finally, it can be concluded that efficient strategies for developing countries, like Iran or Turkey should focus on increasing efficiency of resources and capital acquisition to promote entrepreneurial (Corporate

Entrepreneurship) activities and for these purposes, M&A strategies have been fouund as a strong alternative.

Further Research and limitation

New technologies, such as Internet of Things (IoT) have a lot of potentials to improve developing countries gross domestic product (GDP), and to help the economic development, IoT has been introduced as the next ICT revolution and in recent years, some of the countries, like United States of America, China, South Korea, and India have made policy and vision on it. On the other hand, the M&A models on this area are highly needed and maybe the next M&A waves from IoT and their related technologies.

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