

## **An Empirical Study of MENA and MINT IPO Market**

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### **Abstract**

*This paper examines the Initial Public Offer markets of MINT (Mexico, Indonesia, Nigeria and Turkey) and MENA (Middle East and North Africa) Region. Data collected for 11 years (2008-March 2018) has been analysed. Regression analysis has been used to examine the relationship between the variables. The results tell us that the IPO activity in both the regions has gained momentum and are expected to continue their upward motion. Favourable regulations, economic and financial reforms along with rising optimism amongst investors has proved beneficial. However regional disparities, financial and political vulnerabilities along with huge dependence on oil prices in case of MENA Nations yet pose problems for the IPO markets. Cross analysis suggest that these regions are at similar stage in their IPO growth story. The conclusions can be treated as validation to the developmental activities undertaken by these regions for their IPO activities.*

**Keywords: MINT, MENA, IPO, Initial Public Offer**

**JEL Code: C12, C18, F39**

## **I. Introduction**

*“An IPO is like a negotiated transaction; the seller chooses a time when to come public – and it’s unlikely to be a time that’s favourable to you”- Warren Buffett. This statement highlights the timing dilemma that IPO sellers and buyers face in a primary market.*

*Capital is quintessential for every firm. Be it expansion, acquisition or any other routine business activity ; firms often find themselves looking for avenues which can meet their capital requirements. For long ,organisations have opted numerous modes to finance themselves. Based on several considerations as time needed , cost involved in financing, legal obligations, Projected returns, Market timings, Amount needed etc. firms have to make a tough choice between various routes available to them .Commonly used modes are equity financing , Long term Debts and Retained earnings. Equity financing wherever possible, has been a preferred choice amongst firms owing to advantages of being irredeemable till liquidation and most flexible in all. It is firm’s own capital which it can raise through capital markets in lieu of ownership rights in proportion to the amount paid by either existing or new shareholders. When firms looking to raise capital from the market for the first time approach potential shareholders through a public stock exchange then such offer is called an Initial Public Offering(IPO).*

*Ever increasing number of companies are accessing primary markets for equity capital. Not just India but the world has witnessed a multifold growth in the scale and size of IPO offerings. In 2017 alone, we saw MENA Countries (Middle East and North Africa) raising \$3.4 Billion through IPOs. Indian companies too raised nearly \$1.07 Billion in primary market in 2017. However, we still have a long way to go before we can ever fully utilise the potential of such market.*

*The level of development of a national stock market and its potential for growth are characterized by a company’s aspiration to make a public offering on this market, and the stock market’s ability to attract investors. (Grigorievna & Zein, 2016). Similarly, the converse also holds true, every IPO offering is a reflection of the overall business environment, investor sentiments, legal obligations and ability of the country’s stock exchange*

*to facilitate the proceedings efficiently. An active secondary market also is a key input for increased IPO activity.*

*This paper is an attempt to analyse the IPO activity in the MINT (Mexico, Indonesia, Nigeria and Turkey) and MENA (Middle East and North Africa) regions. Both the regions differ significantly in their approach towards their stock markets. The study looks at IPOs offered over a period of 2008-2018 (11 Years). The trend elaborates the activity after the US Financial Crisis and hence captures the impact.*

*Looking at MENA Region , it is a good example to study the IPO potential of such economies whose financial markets are mostly closed and opaque in their operations and thus their potential is largely unknown and unexploited. On the other hand, MINT region countries are a set of emerging growth destinations whose stock markets though open but are largely under strain due to political and economic vulnerabilities.*

*The remainder of the paper is organised as: Section 2 looks at the literature on the subject matter. Section 3 talks about the objectives of the study. Fourth section describes the hypothesis established. Fifth section talks about data and methodology used to analyse the models. Findings and discussions can be found in Section 6. The last section concludes the paper followed by references.*

## **2. Literature Review**

*Grigorievna and Zein(2016) explored GCC(Gulf cooperation Council) countries IPO activity since the starting of the decade. Initially the markets went slow, picking up pace afterwards. They found that the financial crisis had little impact on the IPO activity. Such markets are closed to foreign investors, so trust of domestic investors play an instrumental role in boosting the activity .Largely an oil economy ,any fluctuations in oil prices have direct relation with the money that can be raised. Conventionally Saudi Arabia is the largest economy and thus saw most of the IPOs .However IPO market ratio suggests that Omanis the leader. Despite being traditionally closed GCC markets are gradually standardising and adopting international standards.*

*Ogboi and Oladipo(2012) established causal relationship between Nigerian Stock market and its economy. They state that in the short run the effects have been negative i.e. capital market indices have not*

positively impacted the economy. Market capitalization, low absorptive capitalization, illiquidity, misappropriation of funds among others could be the possible reasons. However, in long run there is a positive relationship between the two. The market is saddled with slow rate of listings and lack of government's willingness to strengthen the market. Despite all this market is growing gradually and is expected to join the league of other developing nations in future.

Cheikh et al.(2018) examined the effect of change in oil prices on the stock markets of GCC nations. The impact is uneven for countries against the general sensitivities assumed. Negative oil price changes have larger impact than positive changes for oil exporting countries. Some countries as Kuwait are less oil dependent than others while Qatar and Oman are sensitive to large price changes than small ones .They conclude that investors should be cautious while investing and must diversify their portfolio since oil shocks can be instrumental in deciding the returns. While GCC economies have undertaken reform path and are building on the fiscal buffer but more is needed to completely offset effects of oil price changes on stock movements.

Alshiab (2018) studied the short run and long run performance of IPOs in MENA countries. He points out that behavioural opinion hypothesis, Investor overreaction ,signalling theory and information asymmetry can explain the relative underperformance of stocks in the long run compared to overperformance in the short term. Subsequent price correction depends on the level of overreaction/underreaction that stock went through during its IPO. Companies too intentionally under-prices its shares to encourage overperformance which gives it a huge pool of capital. The overperformance soon vanishes as investors realise real value and cyclical corrections around fundamental value are observed.

Alanazi and Liu (2013) examined the IPO performance in GCC nations. Pre IPO-performance is much stronger than Post IPO performance. Agency costs and window dressing seem to be the probable reasons explaining such decline. Also, larger firms tend to perform better post IPO than smaller firm which shows that Lack of Opportunity Hypothesis exists.

Yusuff et al. (2016) analysed if stock markets can contribute to the growth of countries in MENA region. Mobilising savings and expanding and consolidating the capital markets in the region can be a solution to investment issue. However, markets are still naïve and are characterised

*by problems as absence of derivatives, Limited foreign access, High government interference, prohibited short selling and Lax disclosure norms.*

*Darmadi et al. (2012) checked if underpricing in Indonesian IPO markets was associated with board structure and corporate ownership. Board independence is positively related to level of under-pricing while size of board and institutional ownership are negatively associated. This can help investors base their decision carefully while subscribing for an IPO.*

*Suherman (2009) stated that the notion of long term underperformance of Indonesian IPOs is to a great extent dependent upon the method used for evaluating returns. Different methods come up with different results. Also factors as institutional ownership, age and initial returns all relate to the long term performance of IPOs.*

*Erdogan(2005) noted the sectoral IPO constraints in reference to Maritime industry in Turkey. Lack of equity resources available to companies since returns do not commorate the risk and bank's unwillingness to intermediate has led to vary limited IPO activity. Turkish markets are still a long way before they can be called Mature markets.*

*Segot & Lucey (2005) studied capital market integration and noted that MENA region markets cannot be said to be in a bivariate relationship with European Monetary Union. Markets have started moving towards international financial integration and display heterogeneous reactions towards financial, political events. Moreover, Israel and Turkey turned out to be the most promising markets flowed by Egypt, Jordan and Morocco.*

### **3. Objectives**

*This study aims to:*

- a) Analyse the IPO(Initial Public Offer) markets of MENA Countries.*
- b) Analyse the IPO markets of MINT Countries.*
- c) Compare the IPO markets of MINT and MENA Countries.*

### **4. Hypothesis**

***H01:*** *There is no difference between MENA and MINT Countries IPO market.*

**H<sub>01</sub>:** *There is difference between the IPO markets of MINT and MENA Countries.*

**H<sub>02</sub>:** *There is no growth in IPO markets in MINT Countries.*

**H<sub>a2</sub>:** *IPO markets of MENA Countries are growing.*

**H<sub>03</sub>:** *There is no growth in IPO market of MENA Countries.*

**H<sub>a3</sub>:** *IPO markets of MINT Countries are growing.*

## **5. Data and Research Methodology**

Data regarding the primary issue was collected for 11 years (2008-March 2018) using number of sources as Annual Reports, Quarterly reports of organisations as EY, PwC, AL MASAHI CAPITAL etc. Number of successful IPOs and the subsequent amount raised were noted for both MINT (Mexico, Indonesia, Nigeria and Turkey) and MENA (Middle East and North Africa) countries.

Further using Regression analysis, the relationship between the year of issue and Amount raised in all the above mentioned years was established. Similar relationships were looked upon for year of issue and number of issues offered in the market and year of issue and average amount raised per offer.

Semi Log equation has been used as per below:

$$\text{Log } Y = a + bx(\text{Year})$$

Where,

*Y = Number of issues made, Amount of money raised, and Average amount of money raised per issue respectively.*

*X = Year of issue*

*B = Sensitivity of change in Y due to a unit change in X.*

## **6. Analysis and Interpretation**

*This section elaborates upon the regression analysis of Dependent and Independent variables in the study.*

## MINT Countries IPO Analysis Model.

### SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.654070113
R Square	0.427807712
Adjusted R Square	0.356283676
Standard Error	0.75007733
Observations	10

ANOVA					
	Df	SS	MS	F	Significance F
Regression	1	3.365183	3.365183	5.981314	0.040207
Residual	8	4.500928	0.562616		
Total	9	7.866111			

  

	Coefficients	Standard Error	t Stat	P-value	Lower 95%
Intercept	7.735513852	0.586847	13.18149	1.04E-06	6.382243
1	0.201965581	0.082581	2.445672	0.040207	0.011534

$$\text{Regression Equation} = 7.735514 + 0.201966(\text{Year})$$

**Table I:** Regression Analysis output window for amount of money raised through IPOs and Year of issue model in MINT Countries over a period of 11 years(2008-March 2018)

The value of coefficient of determination( $R^2$ ) for amount of money raised and Year of Issue in MINT region is approximately 42 % which shows that the variance in amount of money can be explained by the year of issue to a limited extent. Several other factors such as the maturity level of stock markets, Legal regulations , market sentiments, investor confidence etc. also seem to have a role in explaining the observed variance. Similarly, the value of adjusted  $R^2$  is also .35 which is close to R square value ,this reinforces the above analysis that the value added by the variable can be significant. Moreover, significant F value also suggests similar conclusions.

P value is lower than .05 this highlights that independent variable is associated with dependent variable. With every unit change in Year of

issue the amount of IPO raised increase by .20 as is shown by the slope coefficient .

The reason for such increase could be the emerging economies of these countries. Largely ,the economic potential of these countries has been under exploited. A strong recovery from US financial crisis has increased investor's appetite. Initial underpricing can also explain investor overreaction. Improved country fundamentals, Optimistic investors and easing of regulations. Additionally, companies are looking to expand and gain public confidence which has led to higher amounts being raised over the years. However stark differences lie amongst these countries with Mexico and Indonesia being the star performer followed by Turkey and Nigeria being a laggard. Further start-up boom has helped the companies to mobilise money into IPO subscription.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.144088
R Square	0.020761
Adjusted R Square	-0.10164
Standard Error	0.194213
Observations	10

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.006398	0.006398	0.169613	0.69127
Residual	8	0.301749	0.037719		
Total	9	0.308146			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	1.505291	0.151949	9.906587	9.1E-06	1.154897	1.855685
1	0.008806	0.021382	0.411841	0.69127	-0.0405	0.058113

$$\text{Regression Equation} = 1.505291 + .008806(\text{Year})$$

**Table 2:** Regression Analysis output window for Number of IPOs and Year of issue model in MINT Countries over a period of 11 years(2008-March 2018).

Here value of coefficient of determination ( $R^2$ ) shows that the dependent variable can be sufficiently explained by independent variables. On the same lines using value of adjusted  $R^2$  we can conclude that the independent variable adds more value to the model than mere by chance.

Beta coefficient highlights the growth rate of number of IPOs with changing year. It can be said number of IPOs in MINT region are increasing at nearly 8%. This increase can be attributed to the development in the general economy in the region. Investors are optimistic about the performance in the future and hence companies are coming up with public issues to take benefit of this optimism. Moreover these country's markets have shown more resilience towards shocks in the recent past. By focussing on financial markets governments are also giving these economies a push which can be seen in the growth rate of IPOs. Despite this not all the economies are increasing at equal pace with Indonesia leading the region.

SUMMARY  
OUTPUT

Regression Statistics	
Multiple R	0.692019071
R Square	0.478890395
Adjusted R Square	0.413751694
Standard Error	0.647060145
Observations	10

ANOVA

	df	SS	MS	F	Significance F
Regression	1	3.078126	3.078126	7.351857	0.026599
Residual	8	3.349495	0.418687		
Total	9	6.42762			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%
Intercept	6.230222721	0.506248	12.30666	1.77E-06	5.062813
1	0.193159554	0.071239	2.711431	0.026599	0.028882

$$\text{Regression Equation} = 6.230223 + 0.19316(\text{Year})$$

**Table 3:** Regression Analysis output window for average amount of money raised through IPOs per year and Year of issue model in MINT Countries over a period of 11 years(2008-March 2018).

With regard to the  $R^2$  value it can be said that nearly 47% of the variability in average amount per issue can be explained by year of issue. Similar conclusions can be derived from adjusted R square value where 41% of the variance occurs due to year of issue than by mere chance. F value and P value show significant results. Hence the model seems to be predictable using independent variable.

Beta coefficient is .19 which shows that with each year the average amount raised increases 19% approximately.

The growth rate could be the result of higher optimism and enhanced willingness of companies to expand using market funds. Several reforms being undertaken by governments and size of issues increasing with year have also led to more successful IPOs. Additionally, the benefitting past performance of stocks which had raised money through IPOs serve as an attraction for investors. This trend could also be the result of sluggish number of IPOs that come to these exchanges. Hence investors have limited options at their perusal. When looked at region wise distribution of funds we find that Mexico and Indonesia have most investor attention and Nigeria and Turkey are yet to make any significant contribution.

### MENA Countries IPO analysis.

#### SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.100103424
R Square	0.69254254
Adjusted R Square	0.6431021
Standard Error	0.371122787
Observations	10

#### ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.011153	0.011153	0.08098	0.783204892

Residual	8	1.101857	0.137732
Total	9	1.11301	

	Coefficients	Standard Error	t Stat	P-value	Lower 95%
Intercept	9.409577623	0.29036	32.40662	9E-10	8.740006959
1	0.116271029	0.040859	-0.28456	0.7832	-0.10584876

Regression Equation - 9.409577623 + 0.011627103(Year)

**Table 4:** Regression Analysis output window for amount of money raised through IPOs and Year of issue model in MENA Countries over a period of 11 years(2008-March 2018)

Value of Coefficient of determination ( $R^2$ ) is .69 which is significantly higher and thus it can be said that amount of money raised in MENA IPO can be to a greater extent be predicted using Year of issue. Similarly, adjusted  $R^2$  also follows suit and its value is reported to be nearly 64% which suggests that the variables in the model are appropriate and add more value than by mere chance inclusion.

Beta coefficient shows the growth rate which is 0.11 times. Hence the amount of money raised in the MENA Region is consistently growing with each year.

All this can be attributed to the reforms undertaken by government to stimulate stock market activity. Once completely closed to foreign ownership these economies are now liberalising their policies. Also once completely state owned, a fresh wave of privatisation can be witnessed leading to increased investment opportunities for investors. Major oil exporting countries are taking their companies to public to raise funds for expansion and capacity utilisation and thus large ticket IPOs can be seen which corresponds to large amount of money. Also, IPO market which was restricted to few countries in the region has seen fresh activities from all over the region.

#### SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.306659671
R Square	0.631245455
Adjusted R Square	0.59132154

Standard Error	0.216472728
Observations	10

ANOVA

	Df	SS	MS	F	Significance F
Regression	1	0.038914	0.038914	0.830413	0.38878605
Residual	8	0.374884	0.04686		
Total	9	0.413797			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%
Intercept	1.382237179	0.169364	8.161325	3.78E-05	0.991682373
1	0.021718179	0.023833	-0.91127	0.388786	0.076676859

$$\text{Regression Equation} = 1.382237 + 0.02172(\text{Year})$$

**Table 5:** Regression Analysis output window for Number of IPOs and Year of issue model in MENA Countries over a period of 11 years(2008-March 2018).

With regard to the value of  $R^2$  it can be stated that 63% of the variability can be explained by the independent variable. Also adjusted  $R^2$  suggests similar conclusions with value at 59% which shows the appropriateness of variables taken. P value is also significant at .38 which is sufficient to say that the chance of Type I error is low.

Beta coefficient is .02 which states the growth rate of number of IPOs with corresponding year. We can say that the IPO markets are on a growth spree. The economic potential of these markets remains to be explored and within the past decade we have seen them moving towards this goal. The IPO market remained largely unaffected from US Financial crisis seeing just a mild dip due to their closed nature. However, since then IPO activity has taken a significant boost wherein Saudi Arabia has the lion's share followed by UAE and others. Oil prices have direct impact on the IPO activity hence with burgeoning oil prices from 2008-2014 IPO activity was high. Due to fall in oil prices in the later part i.e. 2014-2016 IPO activity increased at a decreasing rate. However, oil prices again accelerated in 2017 till date and hence number of IPOs are increasing. Regulations have also been significantly customised to favour the growth of IPO market.

**SUMMARY OUTPUT**

<i>Regression Statistics</i>					
Multiple R			0.133973717		
R Square			0.017948957		
Adjusted R Square			-0.104807423		
Standard Error			0.239699357		
Observations			10		

  

<i>ANOVA</i>					
	df	SS	MS	F	Significance F
Regression	1	0.008401	0.008401	0.146216	0.712136
Residual	8	0.459646	0.057456		
Total	9	0.468047			

  

	Coefficients	Standard Error	t Stat	P-value	Lower 95%
Intercept	8.027340443	0.187536	42.80417	9.78E-11	7.594881
1	0.010091076	0.02639	0.382382	0.712136	-0.05076

Regression equation = 8.027340443 + 0.010091076

**Table 6:** Regression Analysis output window for average amount of money raised through IPOs each year and Year of issue model in MENA Countries over a period of 11 years (2008-March 2018).

Coefficient of determination shows that 61% of the variance in the dependent variable can be explained using the independent variable. Adjusted R<sup>2</sup> is also significant to the extent of 51%. Beta coefficient shows the rate of growth of dependent variable i.e. average amount of money raised through IPO each year with a unit change in independent variable i.e. Year of IPO offer.

The growth in average amount can be studied from the fact that amount raised through IPOs and number of IPOs are both increasing year on year so average amount is also rising. Congenial environment, rising oil prices and government initiatives all have worked in favour of IPO markets of this region.

**7. Conclusion**

*Initial Public Offer has been a preferred route for companies looking to raise money for long term. Investors are also delighted to subscribe to an IPO they feel worth their money since this gives them a chance to participate in the growth story of the firm and collect handsome returns. However, we find significant differences between the growth and development of IPO markets worldwide. Western markets are highly developed while the Asian markets are holding the rope tight to match the western world. This paper examined the IPO markets of MINT(Mexico, Indonesia, Nigeria and Turkey) and MENA(Middle East and North Africa)region. These markets were traditionally considered too rigid and closed in terms of IPO activity. However in the last 10 or so years we have seen increased IPO activity in the region. Above analysis highlights the same. After analysing the data, we can say that IPO markets have gained momentum in both the markets and the trend is expected to continue. Since the coefficient of determination and adjusted  $R^2$  values are close in both the markets. Hence upon cross analysis we can conclude that both the markets have similar financial environment. MINT countries are saddled with their political and economic uncertainties but are gradually growing towards healthy IPO growth. Regional disparities are quite imminent and investors have high expectations attached with these markets. Similarly, Middle east and North African countries are also gradually opening up and privatising the long held state owned assets which is leading to growing IPO issues. A collaborative effort of government, Investors and Companies is needed to enhance the maturity level of these exchanges. Here too regional disparities are prevalent and investors are cautious while investing their hard earned money on these exchanges. However, the above mentioned results should be taken with a pinch of salt as the data gathered can not be considered exhaustive and can be said, close to actual figures. Also, although the value of  $R^2$  is not much satisfactory but other values are satisfactory, so it does suggest that the variables are significant. Hence, we conclude that despite the recent advancements and growth in IPOs these countries have a long way to go before they can be at par with western stock exchanges and contribute meaningfully to the global IPO scenario. Regional parity would be crucial for the growth of region as a whole. Competitive steps in the right direction is the need of the hour.*

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