

GCC STOCK MARKET FINANCIAL CENTER CLASSIFICATION USING FAM FINANCIAL ATTRACTIVENESS MODEL

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Abstract

The regional financial centers role is highly studied in literature mainly after the European integration. The regional financial centers “RFC” definition, characteristics and measurement method are our main purpose in this study. This study presents FAM “Financial Attractiveness Model” model as numerical indicator for the regional attractive financial center, taking a real case the GCC “Gulf Cooperation Council” region. The GCC economic complexities and financial systems weakness increase the importance of the regional financial center. In this paper, we test the GCC stock market financial center changes by applying FAM model between 2000 and 2004. We test the sub periods from 2000 to 2002 then from 2002 to 2004 in order to see the changes in the regional financial center and then to compare with the IMF anchor regional financial center.

Keywords: Financial place, attractiveness, regional financial centres, GCC stock market attractive center, FAM financial attractiveness model

1. Introduction

The regional financial center plays an important role in the regional financial integration process (Bresson, 2000). In this paper, we will study the regional financial center’s efficiency taking the GCC “Gulf Cooperation Council” region as a real case to study. Several studies tried to formulate a uniform model of measurement for the financial place attractiveness but this model does not exist yet. Due to the absence for a specific model, in this study we present FAM “Financial Attractiveness Model”. This study is divided into three main sections. The first section presents a historical and theoretical overview for the financial place. The second section introduces a financial attractiveness model “FAM” respecting the ancient factors plus recent ones. Continuously, the third section measures the GCC countries stock markets performances influences on the GCC financial centers through applying the FAM model. The GCC FAM-financial center resistance is tested during specific years during 2000 and 2004 and then more specific from 2000 to 2002 and from 2002 to 2004, due to the economic and financial changes of these periods in the Middle East region mainly due to the regional wars and to the availability of data.

2. Literature Review

The financial place term had attracted many economists and international financial institutions attention during the economic and financial theories evolution. Financial place is a bundle of financial activities and services; it is not just financial actors “enterprises”, traders, or even markets (Artus, 2006). Defining the financial place and characteristics took different dimensions over the years, each based on one or multiple financial or economic base, which made it hard to achieve a uniform definition “characteristics, elements and effective factors”.

During the last decades, the international financial poles had focused on improving their financial “places” positions. The financial place term importance is increased by time, while the financial place definition is not uniformed yet. Most country is economic, financial and monetary policies makers believe on developing their financial place/position (Eliet, 2000). The financial attractiveness place is an important target for many developed or developing countries, but the meaning for this term is not clear for all of them; Is it where the financial markets active companies “NYSE, NASDAQ, CAC40...etc”? Is it where the qualified payments systems? Is it where the derivative markets are more active? Is it where the financial systems especially the banking systems is more active? Is it where the financial institutions “Brokers, risk and market analysis, insurance and re-insurance, statistics” more efficient? Is it where the qualified human resources and ITs? Or is it a mixture of all these? (Bresson, 2000)

The central bank of France, defined the financial place in two points: “les lieux and les place”. In the English terms, these two points have the same meaning “the place”. “Les Lieux” ensures the meeting /presence for different effective actors in realising a good functioning for the financial markets operations within important eco-system synergies. “Les places” is the financial-economic agents, specialised services and essential link that direct their operations and facilitate the economic and financial sphere decision makers’ policies (BDF, 2204). The first point “les lieux” can be considered as the background “financial markets and eco-systems” and “les place” as the factors and market actors*.

The growth of financial centers can be traced back to the restrictive regulatory regimes in many advanced countries in the 1960s and 1970s. These regimes blocked the flow of capital to and from other countries (excluding trade financing), or imposed restrictions on the interest rates banks could offer, or raised banks funding costs in domestic markets (for example, through the imposition of high non-interest-bearing reserve requirements) (Artus, 2000). These restrictions were intended to provide governments with more control over monetary policy, encouraged a shift of deposits and borrowing to less regulated institutions, including banks in jurisdictions not subject to such restrictions. (BDF, 2004)

According to Banque De France, the main indicators to measure the financial place attractiveness are the quantitative measurements, which can be reached by certain precision (BDF, 2004). Three essential dimension can precise the financial place attractiveness level, through comparing the following main factors:

- Offer-Supply capacity “financial sector size, total savings amounts”.
- The international integration level “especially, the international financial actor’s participation in the local market”.
- The business size quantities treated and directed by the financial place “local market”.

Banque De France had mentioned that these three dimensions could be reached by some statistics. The financial place measurements took a new direction through focusing on the financial centers specifications and competition factors as one of the essential indicator or factors for the financial place attractiveness. “Banque De France” specified that the financial place attractiveness factor in four point

(the financial centers competitions factors): the presence for financial competitors; regulatory Systems; financial openness; and new technology.

A more practical definition of an IFC International Financial Centres is a center where the bulk of financial sector activity is on offshore on both sides of the balance sheet. IFCs are usually characterized by:

- Jurisdictions that have relatively large numbers of financial institutions engaged primarily in business with non-residents;
- Financial systems with external assets and liabilities out of proportion to domestic financial intermediation designed to finance domestic economies;
- More popularly, centers which provide some or all of the following services: low taxation; moderate or light financial regulation; banking secrecy and anonymity.

International Financial Centers (IFCs) are large international full-service centers with advanced settlement and payments systems, supporting large domestic economies, with deep and liquid markets where both the sources and uses of funds are diverse, and where legal and regulatory frameworks are adequate to safeguard the integrity of principal-agent relationships and supervisory functions (IMF, 2003).

Regional Financial Centers differ from the IFC by their financial markets development and intermediate funds in and out of their region. The regional financial centres might have less strict characteristics and conditions than the international one. The historical presentation for RFC, at the financial researches stage could be returned to 60's and 70's. Three decades after, IMF during consecutive researches had noted that there was limited evidence on the direct risks to the global financial system posed by RFCs. They also noted that when RFC standards for supervision are inadequate and comprehensive risk analysis is hampered by a lack of reliable data on activities in RFCs (IMF, 2003).

Focusing on RFCs characteristics and effective factors, the financial place attractiveness factors can be classified in two panels "traditional and recent factors":

- First, this is the traditional factors "fiscal and regulatory systems, jurisdictions and protective laws, qualified human recourses and technological level...etc" [les Lieux].
- Second, this is the recent factors that would be updated according to the financial markets evolutions, conditions and changes. These factors are highly flexible and vary with the cases.

3. Methodology of research (FAM model)

Financial place definition took different dimensions where different researchers' views made the measurement methods specification harder. Due to the absence for a unified method of measurements, we formalize a financial place attractiveness model FAM that mixes the traditional and recent financial place factors. In applying FAM, we will use empirical economic, monetary, financial, and sociopolitical data between 2000 and 2004 for the GCC countries in classifying their regional financial center.

Several factors play an important role in financial attractiveness place, which can be presented in two groups. The First group is the place or the background/natural tendencies, which is classified as traditional "ex. jurisdictions, fiscal and regulatory roles, technological and human recourses qualifications...etc.". Second group, the flexible factors, which is considered as recent factors "ex. new technologies developments IT". However, numerical measurements have another methodology than the literary one.

The second group of financial attractiveness place factors have a larger role in leading the financial place due to which the first group role would be limited to anchoring the background of the place. Moreover, the second group include political, economic, monetary and financial factors.

FAM model: formulated from different political, economic, monetary and financial factors will be calculated in measuring the RFCs. Although, each factor effectiveness percentage "%" varies according to each case study.

FAM= f(Pa, Ea, Ma, Fa) , where Pa , Ea, Ma and Ea; political, economic, monetary and financial attractiveness, respectively.

Regional FAM= $\sum_{i=1}^n \text{FAM}_i$, where n is the total number of region's members & i each one.

$\text{FAM}_i = a.Pa + b.Ea + c.Ma + d.Fa + \mu$ where, a, b, c and d represent the percentage of effectiveness for each factor in FAM_i and μ is the other factors "if existed".

$Pa = \sum \%p * P_i$ $Ea = \sum \%e * E_i$ $Ma = \sum \%m * M_i$ $Fa = \sum \%f * F_i$

P represents the political elements that effect FAM_i., E represent the economical elements that effect FAM_i, M represents the monetary elements that effect FAM_i and F represent the Financial elements that effect FAM_i

The % of effectiveness for each element vary with regions structure. The main FAM formula is:

$$Y = aX + bZ + cW$$

Y is the financial centre as the region financial position, X is the internal factors it's the sum of the region's member's factors/ evolution, Z is the regional factors, and W is the international factors.

The political, economic, monetary and financial performances influences on the RFC specification can be measured as follows:

$$Y_p = aX_p + bZ_p + cW_p$$

$$Y_e = aX_e + bZ_e + cW_e$$

$$Y_m = aX_m + bZ_m + cW_m$$

$$Y_f = aX_f + bZ_f + cW_f$$

Y_p represents the Political Position/situation, Y_e represents the economic position, Y_m represents the monetary position, and Y_f represents the Financial position.

The research hypothesis:

- H1. The regional financial centers is related to the economic, monetary, financial, socio-political factors.
- H2. The regional financial center might be different from the anchor regional financial center.
- H3. The regional financial center is changing with time within the same regional.

4. Empirical test for the GCC Stock Market financial center FAM

In this section, FAM model will be applied on the GCC as integrating region stock market in order to study the GCC stock markets financial center. The stock markets sensitivity, especially for the emergent economy regions, makes the regional stock market financial center specification harder. We test the GCC financial stock market center during 2000 to 2004, then in two sub-periods from 2000 to 2002 and from 2002 to 2004.

4.1- GCC stock markets overview

GCC (Gulf Cooperation Council) member countries do not treat international or even intra-regional capital investments uniformly. Financial integration remains a distinct goal, while it has been overtaken by GCC functional arrangements. This regional integration is important because the GCC stock markets as a group may be able to offer investment opportunities not possible by one individual GCC market. These markets offer capital-rich GCC equity investors unique diversification benefits associated with optimum portfolios with a balanced mix of domestic and international securities. GCC stock markets are fully accessible to GCC investors, while they have remained relatively closed to international foreign investor.

The underdeveloped GCC stock markets structure limits incentives for participation in these markets. It is likely, though, that as financial integration proceeds, the regional market can become more

attractive to international players. There are some barriers to stock market integration in GCC pertaining to the legal, regulatory and judicial structure, underlying macroeconomic policy, the historical and cultural context of the different jurisdictions, and the nature of the financial infrastructure pertaining to trading mechanisms, accounting conventions and taxation systems. The barriers also reflect the underlying prerequisites needed for effective implementation of a strategy for securities market integration. These include clear laws and regulations about property rights, macroeconomic stability, and free movement of capital (Fasano, 2001).

However, effective securities market integration presumes the existence of some integration of the regulatory and supervisory framework (Abdullarahman, 2006). If market participants are subject to multiple frameworks—and particularly if they are not harmonized, as is the case across GCC—then they are likely to face uncertainties, complexities, and increased costs, both directly in terms of having to comply with multiple regulatory regimes, and indirectly in having to incur the cost for multiple monitoring and enforcement regimes. Many types of legislative and regulatory impediments can also limit integration, including differences in bankruptcy regimes, sanctions regimes, restrictions on ownership by non-nationals, the imposition of rules to protect national industries, requirements to establish local companies, and restrictions of many types on issuers, intermediaries and investors in providing cross-border services. Local or regional laws may also be too detailed and thus too inflexible in changing circumstances (Eliet, 2000).

Despite all, GCC- securities markets had recorded an unpredictable evolution, especially during the latest few years, with an irregular manner. Whereas, the old-experienced markets, like Bahrain's one, didn't show an important participation in these financial boom. We will apply FAM model on measuring GCC center at the stock markets side depending on quantitative factors.

4.2 GCC Financial center as IMF classification

According to the traditional and recent factors “anchor factors, the Middle East financial center passed by three dimensions: Beirut, Bahrain, and lately Dubai as per IMF classification (IMF, 2003). Middle East region has two basic RFCs Beirut and Bahrain recent studies focus on adding Dubai to this chain”. Three decades ago, before the Lebanese civil war, Beirut had seldom dominated the Middle East financial center. The regional political and economic changes had played an important role in shifting the RFC to Bahrain's benefit. However, at the beginning of the last decade of the twentieth century, the end of 15 years of Lebanese civil war, with the effective Lebanese financial reform strategies, which led to remove the war's aches and to share Bahrain with the Middle East financial center. Lately, the remarkable financial reform strategies for UAE might present Dubai as one dimension of the Middle East financial center triangle.

3. 3- Results and Discussions GCC financial center “stock market –FAM model”

FAM model general formula $FAM_i = aX_f + bZ_f + cW_e$

X_f is the sum of the GCC stock market quantitative factors: market size, capitalization and its growth rate; market liquidity/return ratio and profitability/gains indexes for each GCC country respecting the effectiveness percentage.

Z_f and W_f represent the financial status at regional and international stage respectively.

Hypothesis1, both factors Z_f and W_f are considered fixed with respect to each other.

First step: Methodology of calculation:

The economical performances factors are divided into four categories A,B, C, D & E “ A1,A2 & A3”; B1,B2 & B3; C1,C2 ; D1 & D2;E1 & E2 [see table -1-]”, transaction values, market capitalisation /\$, market capitalisation /GDP, turnover ratios and gain index, respectively.

Stages of calculation are classified as follows:

- 1) Data collection from the possible resources “countries central banks statistical publishes/ IMF or Word Bank reports/ or any available statistical reports”.
- 2) Data organisation and preparation to FAM model.

- 3) Score table flexible ranges, according to each factor (minimum and maximum score) and to the scored average data in a respecting [1→5].
- 4) Data formalisation according to each factors ranging table “second and third table”.
- 5) Ranging the slope of efficiency [a] for each factor according to each factor referred to the author’s estimation that build according to the region’s members situation.
- 6) Overall score after applying the FAM general model.

Second step: Data organization Table -1-

Collecting the data is the first step in order to elaborate them in a descriptive one. Thus, each of the above factors will participate in classifying the GCC’s members in the stock market centers. $Qf = \sum a_i * f$; (a) represents the importance for each factor (i) in the model $\sum a_i = 1$ or 100% and (f) represent each factor that could affect the stock market directly (data type; Numerical availability).

Table -1- GCC stock market data from 2000- to 2004

countries	Transaction			Market Cap\$			Market Gap%GD P		Turnover ratio /%		Index Gains in %	
	A1	A2	A3	B1	B2	B3	C1	C2	D1	D2	E1	E2
	Avth \$	%	Ev%	Av Bn\$	%	Ev	Av	Ev	Av	Ev	Av	Ev
Bahrain 2000→2004	14 .1 24	0.29 1	19.7 6	8.8	3.52 8	20. 48	97.6 2	11. 19	3.1	- 0. 36 6	8.3	143.9 8
Kuwait 2000→2004	637.2 38	13.1 1	64.9 1	44.46	17.8 24	37. 89	107. 14	26. 84	57. 04	44.07 5	26.3	210.4 7
Oman 2000→2004	175.6 33	3.62 1	67.5 8	5.8	2.32 5	11. 46	27.0 8	5.4 3	16. 24	29.47 2	9.62	50.02
Qatar 2000→2004	96.56 0	1.99 41	146. 41	18.98	7.60 9	57. 68	81.1 6	37. 90	8.6 2	62.33 9	43.4	108.3 6
Saudi Arabia 2000→2004	3,843 .94	79.2 5	152. 58	136.1	54.5 62	53. 88	62.3 39	40. 39	71. 8	59.35 6	36.8	490.3 0
UAE 2000→2005	82.44 9	1.69 41	156. 41	35.3	14.1 52	57. 14	58.2 66	57. 48	6.9 4	1.552	42.4	54.74 6
GCC	4849. 89	100 %		249.4 4	100	49. 61	72.2 61					

IMF and Central banks for each country (table A/appendix)

“Note data had been captured from each country’s central bank’s or monetary agency’s annual reports , with the available IMF stuff visiting reports. Then, we calculated it with above methods & values in % are random to the nearest 0.001;see appendix Table A”

A1 Average transactions scored value for each country in four years period .

A2 is the % of participation of each country score (A1) with respect to total value for GCC “A1”

A3 is calculated as the average evolution of 4 years “available data for the transaction scored value annually” in USA \$. e.i for Bahrain: [(Transaction 2001-trans2000)/trans2000+ (trans2002-trans2001)/trans2001....2004]/4.

B1 Average Market capitalization value in USA\$ for each country form 2000 to 2004 .

B2 is the % of participation of each country score (B1) with respect to total value for GCC “B1”

B3 is calculated as the average evolution of 4 years “available data for the Market capitalisation scored value annually” in USA \$. e.i for Bahrain: [(M.Cap 2001-M.Cap2000)/M.Cap2000+ (M.Cap2002-M.Cap2001)/M.Cap2001....2004]/4.

C1 Average market capitalisation/GDP scored value for each country in four years period .

C2 is calculated as the average evolution of 4 years “available data for the Market capitalisation/GDP scored value annually” in USA \$. e.i for Bahrain: $[(M.Cap\ 2001-M.Cap2000)/M.Cap2000 + (M.Cap2002-M.Cap2001)/M.Cap2001....2004]/4$.

D1 Average Turnover ratios scored value for each country in four years period.

D2 is calculated as the average evolution of 4 years “available data for the turnover ratios scored value annually” in USA \$. e.i for Bahrain: $[(Turn2001-turn2000)/Turn2000 + (Turn2002-Turn2001)/Turn2001....2004]/4$.

E1 Average Gain Index scored value for each country in four years period.

E2 is calculated as the average evolution of 4 years “available data for the Gain Index scored value annually” in USA \$. e.i for Bahrain: $[(G.Index2001-G.Index2000)/G.Index2000 + (G.Index2002-G.Index2001)/G.Index2001....2004]/4$.

Third step: model score ranking

Ranking method is based on the maximum and minimum score for each element; e.i A3 according to table 1 (A3 row): 19.76 min & 156.41 max. So, we took the average spread to make it between 0→15 as [0→5] with a range of 30 points, the negative score possibilities according to each factor (e.i evolution might be –ve if there is a devolutions).

Table -2- Method of ranking for each FAM GCC-Stock market factors

Score	Transaction ; Ev30%		Mark Cap \$ Ev 30%		Turnovers (20%)	% Ev	IndexEv20%
categories	A2 Range 15	A3 Range 30	B2 Range 15	B3 Range12*	C2 Range 15*	C3 Range 12*	Range 100*
]-5,-4 [		]-150,-120[		]-60,-48[		]-60,-48[	]-500,-400[
[-4,-3[		[-120,-90 [		[-48,-36 [		[-48,-36 [	[-400,-300 [
[-3,-2[		[-90,-60[		[-36,-24[		[-36,-24[	[-300,-200[
[-2,-1[		[-60,-30 [		[-24,-12 [		[-24,-12 [	[-200,-100 [
[-1,0[		[-30,0[		[-12,0[		[-12,0[	[-100,0[
[0,1[	[0 ; 15[	[0 ; 30[	[0 ; 15[	[0 ; 12[	[0,15[	[0 ; 12[	[0 ; 100[
[1,2[	[15 ; 30[	[30 ; 60[	[15 ; 30[	[12 ; 24[	[15,30[	[12 ; 24[	[100 ; 200[
[2,3[	[30 ; 45[	[60 ; 90[	[30 ; 45[	[24 ; 36[	[30,45[	[24 ; 36[	[200 ; 300[
[3,4[	[45 ; 60[	[90 ; 120[	[45 ; 60[	[36 ; 48[	[45,60[	[36 ; 48[	[300 ; 400[
[4,5[	[60 ; 75[	[120 ; 150[	[60 ; 75[	[48 ; 60[	[60,75[	[48 ; 60[	[400 ; 500[

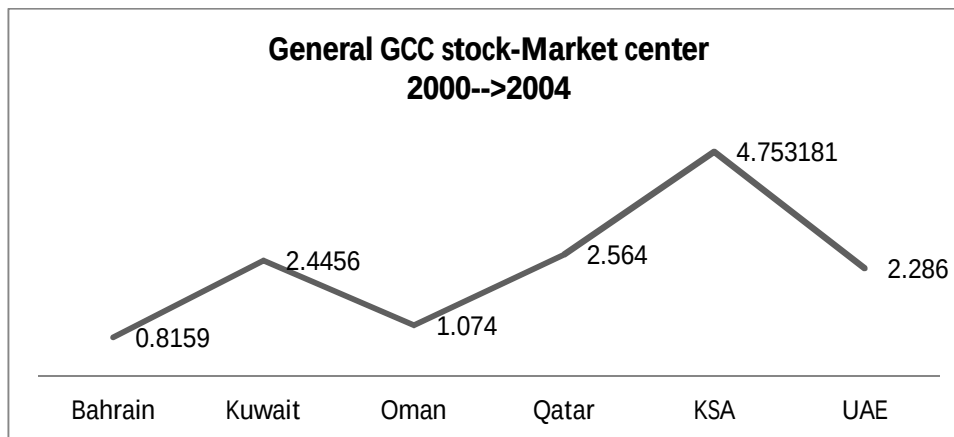
Estimated by author

Fourth step:

The fourth step is to formalize the organized data “ table 1” according to ranking table “table 2”, (e.i A3 for Bahrain is calculated as follows: 14 .124 scored [table -1-]. So, it’s between the [0,30[== [0,1[entity in table 2 (A3 column), then $[(0-19.76)/30 + 0] = 0.6586$ [see table -3-]. The formula slops a= at+am+ar+ag=1 division will be as follows: 0.3; 0.3; 0.2 & 0.2 for transactions [avTran 10% and Ev 20%], market capital [avMCap 10% and Ev 20%], turnover ratios [av Turnover 15% and Ev 5%] and gain indexes, respectively.

Table -3- FAM application on GCC Stock markets “2000→2004”

Score	Transaction ;Ev(30%)		Mark Cap \$Ev(30%)		Turnovers % Ev ((20%))		Index Ev 20%	Score
2000 to 2004	Range 15*10 %	Range 30*20 %	Range 15*10 %	Range 12*20 %	Av Range 15* (15%)	EvRange 12* (5%)	Range 100*	
Bahrain	0.0194	0.6586	0.2352	1.7066	0.2066	- 0.0305	1.4398	0.815925
Kuwait	0.87586	2.1636	1.18826	3.1575	3.8026	3.6729	2.1047	2.445607
Oman	0.2414	2.2526	0.155	0.995	1.0826	2.456	0.5002	1.07439
Qatar	0.13266	4.8803	0.50726	4.8066	0.5746	5.1949	1.0836	2.564027
Saudi Arabia	5.28333	5.086	3.63746	4.49	4.7866	4.9463	4.9030	4.753181
UAE 2000→2005	0.11326	5.2136	0.94346	4.7616	0.4626	0.1293	0.5474	2.286047
Calculated by author (Data are from table 1 and table 2)								



Graph -1- author estimation

From the above figure, we can deduce that Saudi Arabia, the newly developed stock market, is the GCC’s stock market center for the average 4/5 years (graph 1). This surprising result for a new developed market over the old ones increases the questions on the GCC’s stock market financial center resistance. A miner evolutionary changes analysis would help better, we’ll re-test GCC’s stock market center in sub-periods from 2000 to 2002 and from 2002 to 2004. However, one holder would absolutely decrease the hazard probability of Saudi Arabia positioning and increase the center’s resistibility.

Table -4- sub period 2000→2002

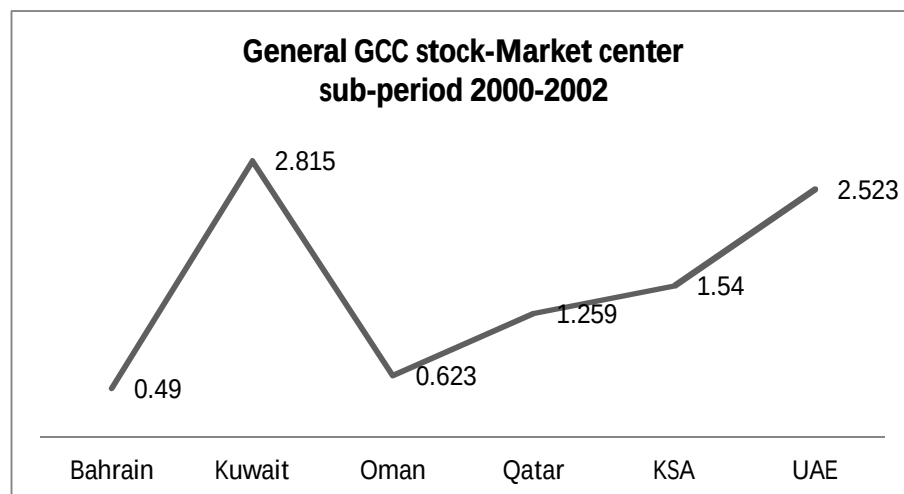
Country/Index	Transaction			Market Cap\$			Turnover ratio /%		Index %	Gains
	Av	%	Ev%	Av	%	Ev	Av	Ev	Av	Ev
2000 to 2002	th\$			Bn\$						
Bahrain	13.05	0.0108	-0.7633	6.933	4.9545	7.5	3.1	-11.44	-5.833	161.2
Kuwait	349.13	28.917	77.23	28.533	20.3953	28.7	42.233	79.03	18.566	456.125
Oman	92.9	7.6945	+33.345	4.933	3.525	1.89	10.733	2.3	-5.933	91.44
Qatar	19.266	1.5957	59.057	9.266	6.6218	13.766	5.15	88.2	27.533	176.96
Saudi Arabia	712.26	58.994	46.16	72.066	51.501	5.07	34.533	37.66	7.5	-42.68
UAE	20.733	17.172	140.25	18.2	13.0065	71.39	2.5	124.9	19.05	-38.55
GCC	1207.3			139.93						

Calculated by author “ based on data Table A- appendix” (same steps as table 1)

Table -5-

Score 2000→2002	Transaction ; Ev 30%		Market Cap \$ Ev 30%		Turnovers ratio % Ev 20%		Index gains %Ev 20%	Score
	Range 30* 20%	Range 15*10 %	Range >15* 20%	Range 15*%1 0%	Av Range 15* (15%)	Ev Range >25* (5%)	Range 100*	
Bahrain	-0.02544	0.072	0.625	0.3303	0.20666	-0.4576	1.612	0.490661
Kuwait	2.574333	1.9278	2.39608	1.35933	2.81553	3.1612	4.5612	2.8153451
Oman	1.1115	0.5129	0.1575	0.235	0.71553	0.092	0.9144	0.6233995
Qatar	1.968566	0.1064	1.147166	0.44145	0.34	3.53	1.7696	1.2593494
Saudi Arabia	1.538666	3.9329	0.4225	3.4334	2.3022	1.5064	-0.4268	1.540976
UAE	4.675	1.1448	5.949166	0.86706	0.16666	4.996	-0.3855	2.523718

Calculated be author (Same procedures of measurement as table 3 with some modification in ranges)



Graph -2- Author estimation

From the above sub-period result 2000 to 2002 (graph 2), we can deduce that Kuwait was the GCC stock market center with low score for Saudi-Arabia. This result would increase the question about the center resistance and the hazard general period 2002 to 2004 holders, which is Saudi Arabia. Below we will test the next sub-period.

Table -6- Sub-period II 2002→ 2004

Country/ Index	Transaction			Market Cap\$			Turnover /%		Index Gains in %	
	Av th\$	%	Ev%	Av Bn\$	%	Ev	Av	Ev	Av	Ev
Bahrain 2002→2004	15.2	0.13	+10.26	11.6	2.653	33.40	3.1	10.71	29.5	367.1
Kuwait 2002→2004	2138.6	18.9	+52.60	68.35	15.633	47.03	79.25	9.11	37.9	60.83
Oman 2002→2004	217.05	1.91	+35.02	7.1	1.6239	21.037	24.5	56.62	32.9	8.61
Qatar 2002→2004	212.5	1.87	233.76	33.55	7.6735	101.59	13.9	36.42	67.1	39.76
Saudi Arabia 2002→2004	8541.4	75.5	258.99	232.1	53.097	102.5	127.7	82.52	80.9	1014
UAE 2002→2005	188.06	1.66	265.00	84.46	19.311	66.68	12.8	107.2	58.0	85.83
GCC	11312.86			437.2						

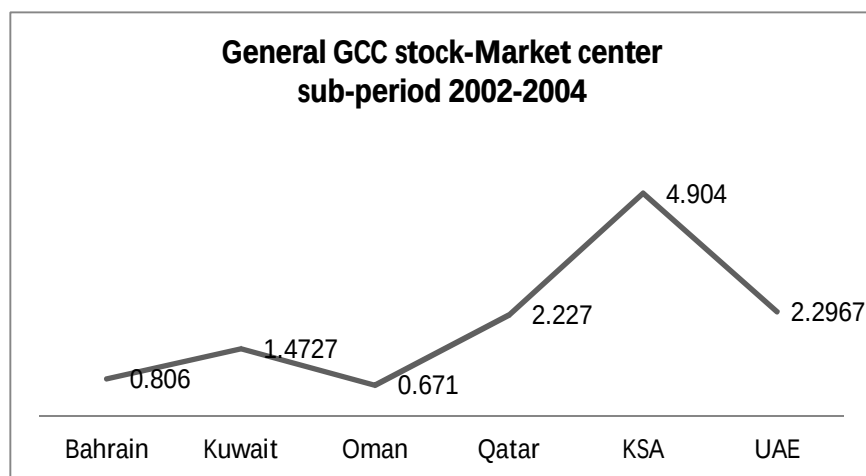
Source IMF and central Banks ; Calculated by author (same calculations in table 1)

Table-7-

Score	Transaction ; Ev 30%		Mark.Cap \$ Ev(30%)		Turnovers ratio % Ev 20%			Index 20%	Score
2002→2004 *	Range Ev> 50*	Range 15* %10%	Range > 20*	Range 15* 10%	Av Range >25* (15%)	Ev Range >20* ((5%))		Range >200*	

Bahrain	0.2052	0.00895	1.67	0.1768 6	0.124	0.5355	1.83568	0.8061 27
Kuwait	1.052	1.2602	2.365	1.0422	3.17	0.4555	0.30415	1.4727 45
Oman	0.70048	0.1279	1.05185	0.1082 6	0.98	2.83127	0.04305	0.6712 55
Qatar	4.6752	0.12522	5.075	0.5115 6	0.55	1.821	0.1988	2.2270 28
Saudi Arabia	5.1798	5.03346	5.125	3.5398	5.108	4.126	5.07	4.9047 86
UAE	5.3	0.11082 6	3.334	1.2874 6	0.512	5.35	0.42919	2.2967 66

Source IMF and Central banks ; Calculates by author (Same measurement as in table 2 with some modifications)



Graph -3- author estimation

From the above sub-period result 2002 to 2004 (graph 3), we can conclude that Saudi Arabia stock market scored an unpredictable evolution during this period. Whereas, the previous holder for the GCC's equity market center "Kuwait" recorded in this sub-period a very low score. It's very important to notice that UAE is the most stable and important stock market position in the GCC region.

The above results show that GCC financial center is effectively moving at the region stock market level. The sub-period and global predictions heterogeneity "Kuwait, Dubai and Saudi Arabia", in a narrow comparison margin period, leads us to classify the GCC's center resistance in a high fragility and flexibility categories. Moreover, during the latest decades of the nineteenth century this center was dominated by Muscat (Bahrain's capital, the financial hub of the Middle East). The stock market center was turning to one face to Kuwait's benefit and then Dubai's (UAE) and finally to Saudi Arabia. According to the GCC financial center "stock markets" low resistance level, we recommend to divide the regional stock markets reform establishment responsibility between Saudi Arabia and Dubai. Thus, studying the GCC banking, financial, monetary, economical and socio-political system performances influences on RFC resistance will improve the prospective of this study.

Conclusion

In this paper, we focused on GCC financial center through applying our FAM Model on the GCC stock markets and comparing it to the anchored regional financial center “IMF classification”. The test results showed that the Middle East anchor FC “Beirut and Dubai” were not the same as the RAFC “FAM model” during 2000-2004 period. The anchor factors present two financial centers for the Middle East, Bahrain and Dubai. FAM model test on “GCC” stock market indicates that the regional attractive financial places were Saudi Arabia, Kuwait and UAE “2000 to 2004”. Bahrain, mostly classified as the Middle East financial hub, recorded the lowest score in GCC financial attractiveness “Regional Attractive Financial Center RAFC 2000 to 2004”. While applying FAM model on GCC stock markets during sub-periods (2000 to 2002 & 2002 to 2004) presented different results, which decrease the GCC stock market resistance level. The GCC economical structure, “highly oil-dependence” with recent political regional instability beside the underdeveloped financial market, makes the FAM-GCC RFC resistibility an important indicator for high regional financial risks.

The main finding in this paper is that in the GCC region the attractive financial center is not that IMF classified one (Saudi Arabia; Bahrain) which illustrates the third hypothesis of the research (H2). Moreover, the GCC attractive financial center low resistance, which appeared in short period's centers changing, increases the need to focus on reforming the GCC financial centers under a harmonized regional financial strategy. However, this study results might not ignore the IMF classified financial centers “Bahrain and Dubai” role, where the professionalism would be a solution, which illustrates the third hypothesis of the research (H3). Therefore, studying another financial markets “Debt markets” beside the economical, monetary and socio-political performances influences on the regional attractive financial center will be the main prospective of this paper, that might either support the stock markets FAM centers or IMF classified centers or might present new ones as stated in the research hypothesis (H1).

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Appendix: Table - A –

Key Characteristics of GCC stock Markets								
Year	Transact ions “thousan ds”	Volume (Mn share)	Value (US \$Bn)	Market Cap (US \$ Bn)	Market Cap (% of GDP)	N° of compa nies	Turno ver Ratio /%1	Index (Gains in %)
Bahrain								
2000	...	420.3	0.2	6.6	82.8	39	3.6	-18.4
2001	13.1	335.3	0.2	6.6	83.3	43	2.9	-2.5
2002	13.0	353.1	0.2	9.7	106.2	44	2.8	28.8
2003	15.8	335.8	0.5	13.5	125.5	46	3.4	30.2
2004	14.596	362.2	0.6	7.6	90.3	48	2.8	3.4
Kuwait								
2000	171	6,758	4.4	21.6	58.6	80	20.4	2.8
2001	355.1	16,299	12.1	28.2	82.8	88	42.9	28.8
2002	521.3	27,834	22.7	35.8	101.8	95	63.4	24.1
2003	1,081.7	49,563	55.1	61.5	147.3	108	89.6	63.9
2004	1,056.9	33,543.7	51.8	75.2	145.2	125	68.9	11.9
Oman								
2000		146.7	0.6	5.1	25.7	113	11.8	-19.6
2001		138.3	0.4	4.5	22.6	119	8.9	-24.4
2002	92.9	191.8	0.6	5.2	25.6	127	11.5	26.2
2003	179.1	315.2	1.5	6.6	30.6	139	22.7	42.1
2004	255	333.2	2	7.6	30.9	166	26.3	23.8
Qatar								
2000	12.2	31.6	0.2	8.2	46.2	22	2.4	8.2
2001	15.8	51.0	0.4	9	50.7	23	4.4	37.2
2002	29.8	79.6	0.9	10.6	53.8	25	8.5	37.3
2003	134.7	190.0	3.2	26.7	113.1	28	12	69.8
2004	290.3	316.6	6.4	40.4	142	30	15.8	64.5
Saudi Arabia								
2000	498.1	554.9	17.4	67.9	36.1	75	25.6	11.3
2001	605	691.8	22.3	73.4	40.1	72	30.4	7.6
2002	1,033.7	1,735.8	35.7	74.9	39.7	73	47.6	3.6
2003	3,763.4	5,566.9	159.1	157.5	73.3	70	101	76.2
2004	13,319.5	10,298	473	306.8	122.3	73	154.4	84.9
UAE								
2000	6.6	24	0.1	11.0	15.7	27	0.9	...
2001	19.3	77.3	0.4	13.7	19.7	27	2.9	23.6
2002	36.3	209.2	1.1	29.9	41.7	37	3.7	14.5
2003	50.7	561.4	2.0	39.6	49.2	44	5.1	32.1
2004	299.3	6,069.3	18.2	82.3	86.	53	22.1	88.4
2005/2	214.2	4,064.3	14.7	131.5	137.3	57	11.2	53.7
Source: GCC countries respective Stock Exchange; and IMF fund estimation stuff								
1/ ratio of value trade to market capitalization								
2/ until end march 2005								