International Journal of Economics, Commerce and Management Vol. IV, Issue 12, December 2016 United Kingdom http://ijecm.co.uk/ ISSN 2348 0386

# A COMPARISON OF FINANCIAL PERFORMANCE BETWEEN SAUDI SAMBA BANK AND JORDANIAN ARAB BANK **BY USING DUPONT MODEL**

## Ahmad Aref Almazari

King Saud University, Community College, Administrative Sciences Department, Saudi Arabia aalmazari@ksu.edu.sa, prof.ahmadalmazari67@hotmail.com

## Abstract

This study basically aimed at comparing the financial performance of Saudi Samba bank with Jordanian Arab bank from 2010-2015 by using the DuPont model of financial analysis. Samba and Arab banks are considered among the largest banks by market value in Saudi Arabia and Jordan. The DuPont model is derived from an analysis of return on equity that divides performance into three parts: Operating efficiency ratio which is measured by profit margin, asset use efficiency which is measured by total asset turnover, and financial leverage which is measured by the equity multiplier. The results of the study discover that, the SAMBA and Arab bank ROE is greater than the ROA, which will ultimately lead to higher performance. In this regard, SAMBA bank performance was much higher than the Arab bank. Net profit margin shows a relative stability for SAMBA bank over the years of study with minimum volatility, while, net profit margin for Arab bank was fluctuating over the years of study. The equity multiplier was declining for SAMBA bank and was almost stable indicators for Arab bank, and it shows that these banks has relied on debt to a higher degree. Asset utilization shows a decline for SAMBA bank over the years of study, and with a minimum volatility for Arab bank. The author recommends that empirical studies are required which would be a source of help to academicians, bankers, and policy makers.

Keywords: DuPont analysis, Net profit margin, Total asset turnover, Equity multiplier, Return on equity, Financial Statements, Net Income, Assets, Liabilities



## INTRODUCTION

The Du Pont model was developed as a tool for analyzing business performance. There are three financial analysis measures used in this model: operating profit margin (OPM), asset turnover ratio (ATR) and equity multiplier (EM). Operating profit or efficiency ratio which is also known as financial performance ratio is measured by operating profit margin (OPM). The OPM measures a business' before tax returns in relation to its volume of sales. While the Asset Turnover Ratio (ATR) measures the efficiency of the business' asset and it is used to determine if assets was utilized efficiently. In addition to that, financial leverage is used to measure the equity multiplier which shows to what extent the bank relies on debts in it is business. In order to increase operating profit margin a commercial banks might increase its interests and control costs effectively. The higher the net profit margin of a business, the more effective it will be at converting revenue into actualprofit. The asset utilization ratio measures how the bank management could make the best utilization of it is assets to generate revenues. Financial leverage ratio is measured by equitymultiplier. The equity multiplier which is measured by total assets divided by stockholders equity, shows how a company's could make the best use of it is debts to finance its assets. Over time the Du Pont model has been expanded to include the analysis of return on equity (ROE) which is also very important measure of profitability and it is calculated by dividing earnings after taxes on stockholders equity. Return on equity show how much a bank can gain revenues for it is shareholders. The higher the bank's return on equity, the better is performance.

The present study compares the financial performance of SAMBA bank of Saudi Arabia with Arab bank of Jordan. Both banks are largest by market value and considered one of the largest financial institutions in Middle East. These banks are operating in a very competitive environment with huge amount of investments. The main objective of this paper is to compare the financial performance of the SAMBA bank of Saudi Arabia with Arab bank of Jordan by using the DuPont system of financial analysis which is based on analysis of net profit margin ratio, total asset turnover, equity multiplier and return on equity during 2008-2013.

The importance of this study stems from using the DuPont model as a powerful analysis tool to determine and assess the value of these banks and estimate the expected value of future cash flows. During the period of study both banks witnessed many challenges and difficulties internally and externally. In addition to that, there is a dearth empirical studies has been carried out in the same area, an empirical investigation is required which would be a source of help to academicians, bankers, and policy makers. Also this study may add new value on the finance literature as regards measuring the performance and profitability of the banking systems.



The paper is divided into sections. Section 1 proposes the introduction which includes the main objective and importance of study. Section 2 explores the related literature review. Section 3 offers a concise identification on SAMBA of Saudi Arabia and Arab banks of Jordan. A financial analysis model for financial institutions is displayed in section 4. Section 5 is discussing the financial analysis of SAMBA and section 6 is also discussing the financial analysis of Arab bank. Section 7 discussing the DuPont analysis for SAMBA and Arab Bank. The remainder of the paper contains the summary and conclusion.

## LITERATURE REVIEW

Raza et al. (2013) examined that most of the time investors do not prefer to highly profitable companies. We investigate the DuPont equation on insurance sector of South Asian region. Through DuPont analysis we see which types of companies are most fruitful for investor. We are using two method of ranking, first one is based on profit (Net income) and second one is based on DuPont equation. After that we see impact of independent variables (Return on asset & financial leverage) on dependent variable (return on equity) by regression analysis. The result shows that the ranking according to DuPont method are more reliable for investors as compared to profit (net income). The finding of this paper is that investor should work on effort method as judge against to effect method.

Carl, et al. (2011) suggested a model which can be used to analyze the financial position of a bank based on the DuPont model of financial analysis used by Saunders (2000) and applied by Collier, et al., (2010). Return on equity of the bank is disaggregated into three parts: 1) net profit margin, 2) total asset turnover, and 3) the equity multiplier due to leverage. The DuPont model was used to measure the performance of Bank Al Bilad. From analysis of the ratios, we are able to deduce that Bank AI Bilad has relied on debt to a higher degree each year to exhibit its return on equity figures, indicating a lower percentage of return on equity being derived from sales activities, or income from banking operations, and profit margin. This is not an abnormal symptom for a bank that has endured relatively few seasons. However, it should be noted that indications to the contrary would be a good sign, if not ideal. It is anticipated, given the conditions of the region's developing capital market and its proximity to the lucrative oil industry and profiting governments that Bank AI Bilad will recover from the inconveniences evidenced in its most recent financial statements.

Collier, et al., (2010) presents a model for the financial analysis of a bank in a rapidly changing environment based on the DuPont system of financial analysis. The DuPont system of financial analysis is based on analysis of return on equity which is disaggregated into net profit margin, total asset turnover and the equity multiplier. AFFIN Bank Malaysia is one of the largest



banks in Malaysia and is one of the core banks from the consolidation process of the banking industry in response to the Southeast Asian economic crisis in 1997-98. The analysis covers begins in 1999 which is the year that AFFIN Bank was formed until 2006. The DuPont system of financial analysis shows the impact of the Asian financial crisis and the restructuring of the banking industry in Malaysia on the financial performance of AFFIN Bank and the gradual recovery of AFFIN Bank to return to steady performance over the past eight years.

Mihaela, et al. (2010). studied the most profitable top 20 firms over the world in 2009 through Du Pont Analysis model, but they discovered that they are not the most attractive ones for investors. They found out that firms does not preserve their ranks when indicators or ratios such as ROA (return on assets), ROE (return on equity) or ROS (return on sales) are taken into consideration.

Soliman, (2008) found out that, Du Pont analysis is one of the tools of financial statement analysis which divide return on net operating assets into two components: profit margin and asset turnover. These two financial ratios measure different objects and have different properties. Previous research discovered that a positive change in asset turnover is correlated to future changes in earnings.

In the adjusted DuPont method, ROE will be still remained as the dominate factor but with some necessary adjustments. ROE clearly demonstrates enterprise's efficiency in financing, investing, operating and capital management (Johansson 1998; Nissim& Penman 2001; Susan 2004; Milbourn, Haight 2005), so it serves as the most important indicator of how to maximize profitability and stockholder's wealth.

## OVERVIEW ON SAMBA BANK OF SAUDI ARABIA AND ARAB BANK OF JORDAN

Samba Financial Group (Samba) is a joint-stock company incorporated in the Kingdom of Saudi Arabia. Samba was established in 1980. This bank is considered as the second-largest bank by market value in Saudi Arabia, it is widely spreaded internally and externally (Company Profile, 2011). Samba Financial Group provides various banking and financial services. It offers various personal banking products and services, including accounts comprising current accounts, small business accounts, and time deposits, as well as accounts for children and teenagers; personal financing services for Saudi nationals, expatriates, and GOSI and PPA retirees; home finance services; ladies banking services; banking solutions in accordance with the Islamic Shariah principles; Speed Cash services; and credit cards. The company also offers business banking services, such as accounts, time deposits, financing and credit services, liquidity management and direct debit services, payment and collection solutions, cash pickup and delivery services, as well as mobile and online banking services and some other services. It operates 72



branches, 33 Speed Cash centers, 496 ATMs, and 26 ladies centers in the Kingdom of Saudi Arabia; 1 branch and 12 ATMs in Dubai; and 28 branches and 28 ATMs in Pakistan, as well as operates branches in London and Qatar. The company headquartered in Riyadh, the Kingdom of Saudi Arabia (Company Profile, 2014).

Arab bank is one of the largest financial institutions in the Middle East. Established in Jerusalem in Palestine in 1930 as a small bank, it has evolved into a group with the largest worldwide Arab network with over 500 branches in 30 countries on five continents, participating in financial markets and centers The Bank is constantly improving its disclosure levels and introducing higher levels of transparency through its financial statements, enabling both shareholders and customers to appreciate its ever-growing earning power, its low risk level, and its strong financial position (Arab bank Annual Reports, 2010).

Arab Bank Group reported positive financial results in 2013 in spite of the challenging environment in the region. These positive results come as a clear testament of the Bank's success in dealing with the regional and global circumstances as a result of the prudent and sound policies which it adopts. Arab Bank Group's accomplishments in 2013 were not just limited to the growth in profitability, but it was also reinforced by the increase and improvement in the financial indicators which demonstrate the strength of its financial position (Arab bank Annual Reports, 2013).

The Bank during 2013 was able to achieve several key strategic objectives despite the many challenges that have emerged during the year. The Bank focused on growing its profits by increasing its operating revenues which has shown positive growth rates due to the increase in the net interest and the commissions generated from the main banking operations. In addition, the Bank was able to keep expenses under control which did not register any growth in 2013. The Bank also continued to improve the quality of the credit portfolio with the provisions coverage ratio for non-performing loans reaching 139%, excluding the value of the collaterals held (Arab bank Annual Reports, 2013).

# A FINANCIAL ANALYSIS MODEL FOR FINANCIAL INSTITUTIONS

DuPont model of financial analysis is used by Saunders in (2000) and applied in Collier, et al., (2010), the DuPont model for financial analysis is based on return on equity. According to the formula, the three elements of return on equity are net profit margin, total asset turnover, and the equity multiplier. Net profit margin alludes to a company's profitability in regards to their ability to control costs. A more profitable company with more control over costs would exhibit a profit margin higher than competitors. Total Asset Turnover is a measure of a company's efficiency in using assets to generate sales. The higher this ratio is the better. The equity



multiplier is a measure of leverage. A higher equity multiplier ratio shows that an institution is relying more heavily on debt financing to obtain funds. As implied, these ratios can be useful tools in comparing a company to its competitors or overall industry. Return on equity, as computed from the other three ratios, is a measure of profitability, suggesting how much profit is being generated with investors' money. Through use of these ratios, authors will be able to construct pro forma financial statements (Carl .M, et al, 2011)

Return on equity is calculated by multiplying return on assets by the equity multiplier. Return on assets is calculated by multiplying net profit margin by total asset turnover:

ROE = (ROA)\*(EM)ROA = (NPM)\*(TAT)ROE = (NPM)\*(TAT)\*(EM)Where;ROE = Return on EquityROA = Return on AssetsEM = Equity MultiplierNPM = Net Profit MarginTAT = Total Asset Turnover





Net profit margin is calculated as net profit (or loss) divided by total revenue. Total asset turnover is calculated as total revenue divided by total assets. The equity multiplier is calculated as total assets divided by total stockholders' equity:



NPM = (NI) / (TR)	TAT = (TR) / (TA)	EM = (TA) / (TSE)
Where;		
NPM = Net Profit Margin	NI = Net Income	TR = Total Revenue
TAT = Total Asset Turnover	TA = Total Assets	EM = Equity Multiplier
TSE = Total Stockholders' Equ	ity	

#### FINANCIAL ANALYSIS OF SAUDI SAMBA BANK

Table 1 shows the financial statements of SAMBA, balance sheet and income statement for the years 2010 to 2015.

Income Statement-Income	2010	2011	2012	2013	2014	2015	Average
Commission Income	5194654	4854527	4768156	4997213	5041081	5163685	5003219
Non Commission Income	2364039	2317632	2420711	2472242	2800691	3093740	2578175
and Gains							
Net Revenue	7558693	7172159	7188867	7469455	7841772	8257425	7581395
Income Statement-	2010	2011	2012	2013	2014	2015	Average
Expenses							
Commission Expenses	658193	478869	494776	468929	447723	500847	508223
Provision for Bad Loans	558792	301412	298654	353358	141333	142168	299286
Overheads	1906585	1957686	2063341	2136998	2233048	2398202	2115976
Net Income	4435123	4434192	4332096	4510170	5010456	5214220	4656043
Balance sheet-Assets	2010	2011	2012	2013	2014	2015	Average
Cash	32580918	33508745	30916137	20383383	14679399	15299930	24561419
Loans and Advances	80250825	89111429	102631062	113455369	124079447	129818882	106557836
Securities and Deposits	67373632	62906520	56218306	65198298	71921293	84101604	67953276
Fixed and other Assets	7210465	7247196	7303651	5999579	6718688	6022263	6750307
Total Assets	187415840	192773890	197069156	205036629	217398827	235242679	205822837
Balance Sheet-Liabilities	2010	2011	2012	2013	2014	2015	Average
Deposits and Dues	153263599	157885157	160693027	165809961	173179936	190586796	166903079
Other Liabilities	8722559	6758830	4637342	4296092	5306894	4298028	5669957
Shareholders' Funds	25429682	28129903	31738787	34930576	38911997	40359857	33250134
Total Liabilities & Share	187415840	192773890	197069156	205036629	217398827	235242679	205822837

## Table 1. SAMBA Financial Statements (2010-2015) (In Thousand Saudi Riyals "000")

#### **Holders Equity**

Source: Calculated from the banks financial statements (2010-2015).

(Note: 1 Saudi Riyal is equal to 0.27 USD).

## **Balance Sheet Items**

SAMBA has four major asset categories: cash and balances with Saudi Arabian Monetary Agency (SAMA), loans and advances, securities and deposits, and fixed and other assets. Cash



© Almazari

with SAMBA were increasing exponentially; it increased from Saudi Arabian Riyal (SAR) 32.6 billion in 2010 to SAR 15.3 billion in 2015 which is almost two times less, while reaching to its peak point of SAR 33.5 billion in 2011. The calculated average from the financial statements of the bank throughout the periods was SAR 24.6 billion. Loans and advances have steadily increased from SAR 80.6 billion in 2010 to SAR 129.8 billion in 2015 reaching it is peak point of SAR 113.4 billion in 2013. The calculated average figure was 106.6 billion. Securities and deposits grew steadily over the period of study, it was increased from SAR 67.4 billion in 2010 to SAR 84.1 in 2015 reaching it is peak point of SAR 84.1 billion in 2015. The average figure was SAR 67.9 billion. Fixed and other assets decreased from SAR 7.2 billion in 2010 to SAR 6.0 billion in 2015, while reaching to its peak point of SAR 7.3 billion in 2012. The average was SAR 6.8 billion.

Bank SAMBA has three major liabilities accounts: customer deposits and dues, other liabilities, and shareholders' funds. Customer deposits and dues increased from SAR 153.3 billion in 2010 to SAR 190.6 billion in 2015, reaching it is peaking point of SAR 190.6 billion in 2015. The average of customer deposits was SAR 166.9 billion. Other liabilities declined over the years from SAR 8.7 billion in 2010 to SAR 4.3 billion in 2015, reaching it is peak of SAR 8.7 billion in 2010. In 2015, it was fallen sharply as compared to the peak value. Shareholders fund grew from SAR 25.4 billion in 2010 to SAR 40.4 billion in 2015, which almost double than the base value. Due to the continuous growth, the shareholders' funds averaged over the six years period at SAR 33.3 billion.

#### **Income Statement Items**

Bank SAMBA receives income from two major sources: commission income and noncommission income from investments. Commission income declined slightly from SAR 5.19 billion in 2010 to SAR 5.16 billion in 2015, reaching it is peak of SAR 5.19 billion in 2010. The average income from commissions' income for the six years period is SAR 5.00 billion. Non commission income and gains increased from SAR 2.4 billion to SAR 3.1 billion. The average income from non-commission income and gains amounts to SAR 2.6 billion.

Bank SAMBA expenses fall into three major categories: commission expenses, provision for bad loans, and overheads. Commission expenses declined sharply from SAR 658million in 2010 to SAR 500 million in 2015, reaching a peak of SAR 658 million in 2010. The average expense in this category was 508 million. Provision for bad loans declined sharply from SAR 558 million in 2010 to SAR 142 million in 2015. The six years average is SAR 299 million. Overheads expenses decreased from SAR 1.9 billion in 2010 to SAR 2.39 billion in 2015, reaching it is peak of 2.39 billion in 2015. The calculated average is SAR 2.12 billion. Net



income increased steadily from SAR 4.4 billion in 2010 to SAR 5.2 billion in 2015, reaching it is peak of 5.2 billion in 2015. The calculated average is SAR 4.6 billion.

## **Discussion of Financial Ratios for SAMBA Bank**

Table 2 contains percent of assets, percent of revenues ratios, and the ratios used to compute the DuPont analysis for SAMBA bank.

Table 2. SAMBA Financial Statements Ratios Computations (2010-2015)

Income Statement-	2010	2011	2012	2013	2014	2015	Average
Commission	0 710/	6 6 9 0 /	6 000/	6 200/	E 710/	6.070/	6 700/
Expanses	0.71%	0.00%	0.00%	0.20%	J.71%	6.07%	0.72%
Provision for Bad	7 30%	1 20%	1 15%	1 73%	1 80%	1 72%	1 0.0%
Loans	1.5970	4.2070	4.1370	4.7370	1.00 /6	1.7 2 /0	4.00 %
Overheads	25.25%	27.30%	28.70%	28.61%	28.48%	29.04%	27.90%
Net Income	58.68%	60.00%	60.26%	60.38%	63.89%	63.15%	61.06%
Total Income	100.00%	100.00%	100%	100%	100%	100%	100.00%
Statement							
Balance sheet-	2010	2011	2012	2013	2014	2015	Average
Assets							
Cash and Balances	17.38%	17.38%	15.69%	9.94%	6.75%	6.50%	12.27%
Loans and Advances	42.82%	46.23%	52.08%	55.33%	57.07%	55.19%	51.45%
Securities and	35.95%	32.63%	28.53%	31.80%	33.08%	35.75%	32.96%
Deposits							
Fixed and other	3.85%	3.76%	3.71%	2.93%	3.09%	2.56%	3.32%
Assets							
Total Assets	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Balance Sheet-	2010	2011	2012	2013	2014	2015	Average
Liabilities							
Deposits and Dues	81.78%	81.90%	81.54%	80.87%	79.66%	81.02%	81.13%
Other Liabilities	4.65%	3.51%	2.35%	2.10%	2.44%	1.83%	2.81%
Shareholders' Funds	13.57%	14.59%	16.11%	17.04%	17.90%	17.16%	16.06%
Total Liab& Share	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Holders Equity							
DuPont Ratios	2010	2011	2012	2013	2014	2015	Average
Net Profit Margin (NPM)	58.68%	59.99%	60.26%	60.38%	63.89%	63.15%	61.06%
Asset Utilization (TAT)	4. 30%	3.72%	3.65%	3.64%	3.61%	3.51%	3.63%
Equity Multiplier (EM)	7.37	6.85	6.21	5.87	5.59	5.83	6.29
Return On Equity (ROE)	17.44%	15.30%	13.65%	12.91%	12.88%	12.92%	14.18%

Source: Computed from the bank financial statements (2010-2015).



As a percent of total assets of SAMBA bank, cash and balances with SAMBA averages 12.27%, with a high of 17.38% in 2010 and 2011 respectively and a low of 6.50% in 2015. Customer loans and advances average 51.45%, with a high of 57.07% in 2014 and a low of 42.82% in 2010. Securities and deposits average 32.96% with a high of 35.95% in 2010 and a low of 28.53% in 2012. Fixed and other assets show the least variability with an average of 3.32% with a high of 3.85% in 2010 and a low of 2.56% in 2015.

As a percentage of total liabilities, customer deposits and dues averaged 81.13%, other liabilities averaged 2.81% and shareholders fund averaged 16.06%. Customer deposits and dues were at their highest percentage in 2011 at 81.90% and lowest percentage in 2014 at 79.66%. Other liabilities were at their highest percentage in 2010 at 4.65% and lowest percentage in 2015 at 1.83%. Shareholders fund were at their highest percentage in 2014 at 17.90% and lowest percentage in 2010 at 13.57%.

As a percentage of total revenue, commission expenses were at their highest percentage in 2010 at 8.71% and lowest percentage in 2014 at 5.71% with an average of 6.72%. Provision for bad loans was at their highest percentage in 2010 at 7.39% and lowest percentage in 2015 at 1.72% with an average of 4.00%. Bank overheads were at their highest percentage in 2015 at 29.04% and lowest percentage in 2010 at 25.25% with an average of 27.90%. Net income was at it is highest percentage in 2014 at 63.89% and lowest percentage in 2010 at 58.68% with an average of 61.06%.

#### FINANCIAL ANALYSIS OF ARAB BANK

Table 3 shows the financial statements of Arab bank, balance sheet and income statement for the years 2010 to 2015.

Income Statement – Income	2010	2011	2012	2013	2014	2015	Average
Interest Income	806546	847331	954607	1027810	1041502	1022375	950029
Non-Interest Income and							
Gains	306940	286300	302195	289676	319672	336663	306908
Net Revenue	1113486	1133631	1256802	1317486	1361174	1359038	1256936
Income Statement Expenses	2010	2011	2012	2013	2014	2015	Average
Interest Expenses	316031	341428	408676	438103	434549	412596	391897
Provision for Bad Loans	236768	91938	131128	49240	38685	12217	93329
Overheads	341928	366181	365585	371580	541405	648109	439131
Income Tax	73674	71083	90072	112337	128691	132097	101326
Net Income	145085	263001	261341	346226	217844	154019	231253
Balance Sheet- Assets	2010	2011	2012	2013	2014	2015	Average
Cash	4649556	3964882	3354402	4331096	3930155	4709940	4156672

Table 3. Arab Bank Financial Statements (2010-2015) (In Thousand Jordanian Dinars "000")



Customer Loans	2613031	3415545	4044307	2676405	3313566	2625024	3114646	Table 3
Securities and Deposits	15585224	16039453	15957684	16985248	18078851	18017731	16777365	
Fixed and Other Assets	471597	501605	556023	545623	537205	506467	519753	-
Total Assets	23319408	23921485	23912416	24538372	25859777	25859162	24568437	-
Balance Sheet -Liabilities	2010	2011	2012	2013	2014	2015	Average	-
Deposits	19062842	19584371	19539880	20003301	21229540	21092474	20085401	_
Other Liabilities	469971	523590	497025	579657	1072343	1248547	731855	_
Shareholder Funds	3786595	3813524	3875511	3955414	3557894	3518141	3751180	_
Total Liabilities &								-
Shareholders' Equities	23319408	23921485	23912416	24538372	25859777	25859162	25042432	_

Source: Calculated from the Arab Bank Annual Financial Reports 2010-2015.Billion

(Note: 1 Jordanian Dinar is equal to 1.43 USD).

## **Balance Sheet Items**

Arab Bank has four major categories of assets - cash, customer loans, securities and deposits as well as fixed/other assets. Cash has fluctuated from Jordanian Dinars (J.D) 4.64 billion in 2010 to a high of JD 4.71 in 2015, reaching it is peaking point of JD 4.71 billion in 2015, with an average of JD 4.16. The customer loans account has fluctuated from JD 2.61 billion in 2010 to JD2.62 billion in 2015, reaching it is peaking point of JD 4.04 billion in 2012, with an average of JD3.11 billion. Securities and deposits moved from JD 15.58 billion in 2010 to JD18.01 billion in 2015, reaching it is peaking point of JD 18.07 billion in 2014, with an average of JD 16.77 billion. Fixed assets moved steadily from a low of JD471 million in 2010 to JD 506 million in 2015, reaching it is peaking point of JD 556 million in 2012, with an average of 519JD million. Arab Bank has three major liability accounts - corporate and retail deposits, other liabilities and shareholder funds. Corporate and retail deposits increased from JD19.06 billion in 2010 to JD 21.09 billion in 2015, reaching it is peaking point of JD 21.22 billion in 2014 with an average level of 20.08 JD billion. Other liabilities increased from JD469 million in 2010 to JD 1.24 billion in 2015, reaching it is peaking point of JD 1.24 billion in 2015, with an average of JD 731 million. Shareholders fund increased from JD 3.78 billion in 2010 to JD 3.52 billion in 2015, reaching it is peaking point of JD 3.95 billion in 2013 with an average level of JD 3.75 billion.

## **Income Statement Items**

Arab bank has three sources of income – interest income, non-interest income and gains, and net income. Interest income has fluctuated from JD 806million in 2010 to JD 1.02 billion in 2015, reaching it is peaking point of JD 1.04 billion in 2014 with an average of JD 950 million. Noninterest income and gains increased from JD 306 million in 2010 to JD336million in 2015, reaching it is peaking point of JD 336million in 2015 with an average of JD 306 million. Net



income increased from JD 145 million in 2010 to JD 154 million in 2015, reaching it is peaking point of JD 346 million in 2013 with an average of JD 231 million.

Arab bank has four expense categories: interest expense, provisions for bad loans, overhead costs, and income tax. Interest expense has declined from JD 316 million in 2010 to JD 412 million in 2015, reaching it is peaking point of JD 438 million in 2013 with an average of JD 391 million. Provision for bad loans dropped from JD 236 million in 2010 to JD 12 million in 2015 reaching it is peaking point of JD 236 million in 2010 with an average of JD 93 million. Overhead costs moved from JD 341 million in 2010 to JD 642 million in 2015, reaching it is peaking point of JD 642 million in 2015 with an average of JD 439 million. Income tax has increased from JD 73 million in 2010 to JD 132 million in 2016, reaching it is peaking point of JD 132 million in 2015 with an average JD 101 million.

## **Discussion of Financial Ratios for Arab Bank**

Table 4. Arab Bank Financial Statements Ratios Computations (2010-2015)

Income Statement Items	2010	2011	2012	2013	2014	2015	Average
Interest Expenses	28.38%	30.19%	32.52%	33.25%	31.92%	30.36%	31.10%
Provision for Loan Facilities	21.26%	8.11%	10.43%	3.74%	2.85%	0.90%	7.88%
Staff and Other Overheads	30.71%	32.30%	29.09%	28.20%	39.77%	47.69%	34.63%
Income Tax	6.62%	6.27%	7.17%	8.53%	9.45%	9.72%	7.96%
Net Income	13.03%	23.20%	20.79%	26.28%	16.00%	11.33%	18.44%
Total Income Statement	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Balance Sheet Assets	2010	2011	2012	2013	2014	2015	Average
Cash	19.94%	16.57%	14.03%	17.65%	15.20%	18.21%	16.93%
Customer Loans	11.21%	14.28%	16.91%	10.91%	12.81%	10.15%	12.71%
Securities, Net	66.83%	67.05%	66.73%	69.22%	69.91%	69.68%	68.24%
Fixed and Other Assets	2.02%	2.10%	2.33%	2.22%	2.08%	1.96%	2.12%
Total Assets	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Balance Sheet- Liabilities	2010	2011	2012	2013	2014	2015	Average
Deposits	81.75%	81.87%	81.71%	81.52%	82.10%	81.57%	81.75%
Other Liabilities	2.02%	2.20%	2.08%	2.36%	4.15%	4.83%	2.94%
Shareholders Equities	16.24%	15.94%	16.21%	16.12%	13.76%	13.61%	15.31%
Total Liabilities & Shareholders' Equities	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
DuPont Ratios	2010	2011	2012	2013	2014	2015	Average
Net Profit Margin (NPM)	13.03%	23.20%	20.79%	26.28%	16.00%	11.33%	18.44%
Asset Utilization (TAT)	4.77%	4.74%	5.26%	5.37%	5.26%	5.26%	5.11%
Equity Multiplier (EM)	6.16	6.72	6.17	6.2	7.27	7.35	6.65
Return on Equity (ROE)	3.83%	6.90%	6.74%	8.75%	6.12%	4.83%	6.20%

Source: Computed from the bank financial statements (2010-2015).



Table 4 contains percent of assets, percent of revenues ratios, and the ratios used to compute the DuPont analysis for Arab bank.

As a percent of total assets of Arab Bank, cash averages 16.93% of total assets with a high of 19.94% in 2010 and a low of 14.03% in 2012. Customer loans average 12.71% of total assets with a high of 16.91% in 2012 and a low of 10.15% in 2015. Net securities average 68.24% with a high of 69.91% in 2014 and a low of 66.73% in 2012. Fixed assets average 2.12% with a high of 2.33% in 2012 and with a low of 1.96% in 2015. Corporate and retail deposits average 81.75% with a high of 82.10% in 2014 and a low of 81.52% in 2013. Other liabilities average 2.94% with a high of 4.83% in 2015 and a low of 2.02% in 2010. Shareholder funds average 15.31% with a high of16.24% in 2010 and a low of 13.61% in 2015.

As a percentage of total revenue, interest expenses were at their highest percentage in 2013 at 33.25% and lowest percentage in 2010 at 28.38% with an average of 31.10%. Provision for bad loans was at it is highest percentage in 2010 at 21.26% and lowest percentage in 2015 at 0.90% with an average of 7.88%. Bank overheads were at their highest percentage in 2015 at 47.69% and lowest percentage in 2013 at 28.20% with an average of 34.63%. Income tax was at it is highest percentage in 2015 at 9.72% and lowest percentage in 2011 at 6.27% with an average of 7.96%. Net income was at it is highest percentage in 2013 at 28.20% and lowest percentage in 2013 at 26.28% and lowest percentage in 2015 at 9.72%.

## DuPont ANALYSIS OF SAMBA AND ARAB BANK

The net profit margin for SAMBA bank averages 61.06% with a range from 58.68% in 2010 to 63.15% in 2015, reaching it is peaking point of 63.89% in 2014. While, net profit margin for Arab bank averages 18.44% with a range from 13.03% in 2010 to 11.33% in 2015, reaching it is peaking point of 26.28% in 2013. The net profit margin for both banks is shown in Figure 2.



0

![](_page_12_Figure_7.jpeg)

The total asset turnover for SAMBA bank averages3.63 times with a range which declined from 4.30 times in 2010 to 3.51 times in 2015, reaching it is peaking point of 4.30 in 2010. While, total asset turnover for Arab bank averages 5.11 times with a range which increased from 4.77 times in 2010 to 5.26 times in 2015, reaching it is peaking point of 5.37 in 2013. The total asset turnover for both banks is shown in Figure 3.

![](_page_13_Figure_2.jpeg)

The equity multiplier for SAMBA averages 6.29 times with a range from 7.37 times in 2010 to 5.83 times in 2015, reaching it is peaking point of 7.37 in 2010. While, the equity multiplier for Arab bank averages 6.65 times with a range from 6.16 times in 2010 to 7.35 times in 2015, reaching it is peaking point of 7.35% in 2015. The equity multiplier for both banks is shown in Figure 4.

![](_page_13_Figure_4.jpeg)

![](_page_13_Figure_5.jpeg)

![](_page_13_Picture_7.jpeg)

The return on equity for SAMBA bank averages 14.18% with a range from 17.44% in 2010 to 12.92% in 2015, reaching it is peaking point of 17.44% in 2010. Return on equity for Arab bank averages 6.20% with a range from 3.83% in 2010 to 4.83% in 2015, reaching it is peaking point of 8.75% in 2013. The return on equity for both banks is exhibited in Figure 5.

![](_page_14_Figure_2.jpeg)

Figure 5: SAMBA and Arab Bank ROE

## SUMMARY AND CONCLUSION

This paper aimed to measure the performance of SAMBA and Arab banks from the period of 2010 to 2015, as they are two large banks in Saudi Arabia and Jordan by market value. The DuPont model system of financial analysis is used to achieve the purpose of this study. As a matter of fact, the Du Pont model was developed as a tool for analyzing methods of increasing return on assets (ROA). However, the bank return on equity is disaggregated into three parts: 1) net profit margin, 2) total asset turnover, and 3) the equity multiplier due to leverage. From the above discussion of the financial ratios, it was found that SAMBA bank had high return on equity, though it was fluctuating over the years of study due to the impact of recent world financial crisis. Ideally, banks invest money at a cost that is less than the return on assets. When this situation occurs, the bank operation is earning more on its assets than its paying on its liabilities and ROE will exceed ROA. The SAMBA and Arab bank ROE is greater than the ROA which means that both banks are earning more return on equity (ROE) than return on assets (ROA) which will ultimately lead to higher performance. In this regard, SAMBA bank performance was much higher than the Arab bank. When this situation is reversed and ROA

![](_page_14_Picture_7.jpeg)

exceeds ROE, then the cost of liabilities is greater than the return on assets and invested money is generating a negative margin that must be subsidized by the equity of the operation.

Net profit margin shows a relative stability for SAMBA bank over the years of study with minimum volatility, while, net profit margin for Arab bank was fluctuating over the years of study, there was a drop in the ratio of NPM in the year 2015 in Arab Bank. The equity multiplier was declining for SAMBA bank and was almost stable indicators for Arab bank, and it shows that these banks has relied on debt to a higher degree. Asset utilization shows a decline for SAMBA bank over the years of study, and with a minimum volatility for Arab bank. The net profit margin for SAMBA reached approximately to 63.89percent and to 26.28 percent for Arab with an average of 61.06percent and 18.44 percent respectively. The total asset turnover reached it is peak for SAMBA with 4.30percent and to 5.37 percent for Arab bank with an average of 3.63percent and 5.11 percent respectively. Equity multiplier reached approximately to 7.37 percent for SAMBA and to 7.35 percent for Arab bank with an average of 6.29percent and 6.65percent respectively. The return on equity for SAMBA reached approximately to 17.44 percent and to 8.75 percent for Arab bank with an average of 14.18 percent and 6.20 percent respectively. However, during the period of study both banks witnessed many challenges and difficulties internally and externally.

As there is a dearth empirical studies has been carried out in the same area, the author recommend an empirical studies is required which would be a source of help to academicians, bankers, and policy makers. Also this study may add new value on the finance literature as regards measuring the performance and profitability of the banking systems. Saudi and Jordanian banks can perform better as they exist in a very save, sound and stable economic environment.

## ACKNOWLEDGEMENT

This project was supported by King Saud University, Deanship of Scientific Research, Community College Research Unit.

## REFERENCES

Arab bank Financial Statements, 2010-2015. http://www.ase.com.jo/ar/node/1660. Accessed Jun,2016. Arab Bank Group Annual Report 2013. www.arabbank.com/en/investfinancials.aspx. Accessed,Aug,2016 Arab bank Group Annual Reports, 2010. www.arabbank.com/en/investfinancials.aspx Accessed Aug.2016.

Bank SAMBA Financial Statements, 2010-2015. Tadawul,www.tadawul.com.sa/ Accessed Jun,2016.

![](_page_15_Picture_10.jpeg)

Carl, B. McGowan, J. Andrew, R. and Stambaugh, Z.2011. "Financial Analysis Of Bank Al Bilad, pp12-13, International Business &Economics Research Journal, 10(3). 2011.www.cluteinstitute.com/ojs/index.php/IBER/article/download/.../4151 Accessed Dec,2015.

Collier, W. Carl, B. McGowan, J. and Junaina, M.2010. "Evaluating the Impact of a Rapidly Changing Economic Environment on Bank Financial Performance Using the Dupont System of Financial Analysis", Asia Pacific Journal of Finance and Banking Research. 4(4), pp.25-35, 2010.http://ro.uow.edu.au/commpapers/1730/. Accessed Dec,2015

Johansson, S.1998. "The Profitability, Financing, and Growth of the Firm: Goals, Relationships and Measurement Methods". Lund, Sweden: Student literature, 1998. http://www.amazon.co.uk/Profitability-Financing-Growth-Firm-Relationships/dp/8763000334Accessed Oct,2015

Mihaela, H. Claudia, O and Lucian B.2011. "A Du Pont Analysis of the 20 Most Profitable Companies in the World", 2010 International Conference on Business and Economics Research IACSIT, 1,2011,pp.45-48.www.ipedr.com/vol1/10-B00015.pdfAccessed Nov,2015

Milbourn, G. and Haight, T. 2005. "Providing Students with an Overview of Financial Providing Students with an Overview of Financial Statements Using the DuPont Analysis Approach", Journal of American Academy of Business, 6(1), pp.46-50.http://www.docstoc.com/docs/45107318/Providing-Students-withan-Overview-of-Financial-Statements-Using, Nov, 2013Accessed Sep, 2015

Nissim, D. and Penman, S. 2001. "Ratio Analysis and Equity Valuation: from Research to Practice", Review of Accounting Studies ,pp.114-154, 2001.link.springer.com/article/10.1023%2FA%3A1011338221623Accessed Nov,2015

Raza, S.A., Jawaid, S.T and Adnan , M.2013, "A DuPont Analysis on Insurance Sector of South Asian Region", MPRA Paper No. 49289, posted 25. August 2013 20:58.

Samba Financial Group, Company Profile 2014.www.bloomberg.com/research/stocks/snapshot/snapshot.asp?...SAMBAAccessed Dec,2015

Samba Financial Group, Company Profile - 2011. www.alacrastore.com/.../moodys-global-creditresearch-Samb. Accessed Jul,2016

Saunders, A.2000. "Management of Financial Institutions", McGraw Hill, Third Edition, 1999. www.gettextbooks.co.in/author/Anthony\_SaundersAccessed Jul,2015

Soliman, M.2008. "The Use of DuPont Analysis by Market Participants", The Accounting Review, University of Washington, 83(3), pp.823-853, May 2008.faculty.haas.berkeley.edu/kli/papers/Soliman-2008TAR.pdf Accessed Nov.2015

Susan, M.M. 2004. "Why The DuPont Model Is Important, Valuation Strategies", 7(3), pp.24-31, May 2012.leidykla.vgtu.lt/conferences/BM 2012/.../262 268 Zhang.pdf Accessed Oct,2015.

![](_page_16_Picture_14.jpeg)