

The Effectiveness of Improving Non-Oil Saudi Export Through Ma'aden Aluminum Company

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Abstract

Saudi Arabia is a major producer of natural oil and one of the largest exporters of crude oil in the world. More than 80% of the total Saudi exports go in favor of oil. Saudi Arabia being in the middle of the Arab world and has a significantly important geographical location with an abundance of the natural resources of minerals and so on; all of that is reflected on the development and prosperity of the growing economy of the kingdom and the trade balance. From here the government of Saudi Arabia is keen to promote non-oil exports before running out of oil reserves. Ma'aden Aluminum Company is the major key player of aluminum industry in Saudi Arabia; with grow administratively and financially day after day. This study attempts to find out how the company can play its part in improving the country's overall exports; and provides in-depth analysis of the company's financial health through SWOT analysis of the company, financial ratio analysis, company's valuation and free cash flow model. Regression analysis also provides the linear relationship among the Saudi non-oil exports growth and Ma'aden Aluminum Company's export. The results of this study show that the company can play a significant role in improving the overall Saudi Arabia exports.

Keywords: Export, Non-oil industries, Performance Analysis, Business Development.

Introduction

Saudi export of non-oil products became of the pressing issues of the Saudi economy, so it is a vital factor in economic development efforts. Development plans have focused on diversification of sources of national income by giving priority to the production and manufacturing sectors and reduce dependence on oil as the sole source of income. Saudi non-oil exports exceeded 150 billion riyals throughout the past two years as indicated by Saudi Export Development Authority.

Export diversification has been adapted widely by developing countries and multilateral institutions, such as the World Bank, as a policy measure to tackle the problem of export instability and to achieve higher rates of export growth. At the same time, it has been argued that the implementation of export diversification policies would reduce the dependence of the developing countries on traditional exports whose prices have not only risen at generally slow rates of growth over the long run, but also have been sensitive to excessive short-term fluctuations.

As it is noticed that in the Arabian Gulf States the aluminum production business has developed since the 1970s to turn into a critical non-oil industry sector in this quickly

growing territory of the world. This production diagrams the exercises results of the aluminum business of the Gulf States and clarifies the paramount commitment that this industry is making to the economy of the Gulf States. Saudi Arabia has the main factors required for this industry as Row material (Bauxite), cheap energy and good geographical location in the middle of the main trade routes.

Aim and objectives of the study

The aim of this research is to evaluate the effectiveness of exports of Ma'aden Aluminum Company on the overall exports growth of Saudi Arabia. Furthermore, this research also evaluates the performance of the company through its financial statistics. Following are the research objectives:

- To assess the performance of Ma'aden Aluminum Company through its financial data and to evaluate the impact of export of Ma'aden Aluminum Company over the growth of Saudi Exports
- To provide important recommendations for future studies.

Research methodology

There are two categories of research strategies that are qualitative and quantitative strategies. The qualitative strategy is based on the case study, previous studies, and collection of primary data through interviews or open ended questionnaires, while in quantitative strategy the numeric data is gathered by the researcher through the primary and secondary sources. In this study, the researcher will adopt the secondary quantitative research strategy, which will be focused on the numeric figures of aluminum exports of Ma'aden Aluminum Company. For this research, only one company is focused this is a case study analysis of Ma'aden Aluminum Company's aluminum exports and its share in total export of the Kingdom of Saudi Arabia.

The secondary published data of the Ma'aden Aluminum Company for exports and production as well as the National Export Statistics of Saudi Arabia will be gathered from the online sources. The data will be authentic and reliable as the data will be directly collected from the company's website. Moreover, the data will be analyzed through regression analysis with the help of SPSS.

In order to conduct this research, the researcher has adopted the quantitative strategy in which the secondary data will be collected from the annual reports of Ma'aden Aluminum Company. The data has been analyzed with the help of SPSS and has been interpreted to support the research questions.

The researchers have to ensure that the data being collected is done via authentic resources and mediums that are more appropriate to gain the research outcomes. It is a vital aspect in the domain of research and is included in any kind of research, as the data collected has a direct impact on the research results. There are two types of data collection methods: 1) Primary and 2) Secondary. As defined earlier, the research is based on quantitative methodology; similarly the data collection for the research has also been done by quantitative mediums. For this current study, the secondary data have been collected from annual report of Ma'aden Aluminum Company.

A research instrument is used for the collection of data and is a helpful tool for any research. A research instrument can be a survey, observation, questionnaire, testing

scale, or measurement of other variables. In this research, the research instrument used for the secondary data are the annual reports of the company and country's export data, whereas for the collection of secondary data the research has focused on the available literature as well.

Finally, the ethical guidelines for conducting research have been strictly followed in the thesis. The main ethical area considerations including informed consent, voluntary participation, potential for harm, anonymity and confidentiality, communication of results and so forth, have been considered in this study. Furthermore, while conducting the research from the research participants, the researcher must avoid any kind of research bias, like gender or class bias, etc. This research has been catered considering all these aspects in mind.

Literature review

The starting point for most analyses of the causes of export instability based on the characteristics of a country's economic structure has been that instability was explained in terms of developing countries' specialization in the export of primary products. Certainly, there is evidence to suggest that there are greater fluctuations in the prices of primary products than in the prices of manufactured products since the early 1970s. According to Gately, Al-Yousef & Al-Sheikh, (2012), the commodity terms of trade, measured as the ratio of the commodity price index to that of manufactured products, dropped nearly 40 percent between 2000 and 2010, compared to a 30 percent drop between 1990 and 1999, the period of the Great Depression. Such fluctuations in the developing countries are partly due to the low price elasticity's of both demand and supply of primary products and partly due to natural factors, such as weather conditions. Esfahani, Mohaddes & Pesaran, (2014) premised his argument on two assumptions: (1) that the typical developing country does indeed specialize in exporting products, and (2) that receipts from primary product exports are inherently subject to greater short- run instability than receipts from manufactured products.

Instability in export proceeds may also stem from commodity concentration, that is, heavy dependence on one product or on a small group of products. Rehman & Al-Hadhrami, (2014) stated that:

It appears sensible to expect that specialization in a restricted reach of merchandise ought to make for flimsiness - on the general grounds that it is constantly unsafe to put all one's eggs in a solitary business. Focus on a couple of items lessens a nation's shots of having variances in one bearing in some of its fares counterbalanced or improved by counter-changes or strength in others.

A similar argument is also applied to geographic concentration that is commodities are sold to a small number of foreign markets. Husain & Khalil, (2013) summarized the customary view of the impact of geographic concentration by arguing that: High geographic focus is liable to suggest more amazing reliance on economic conditions in one or in a couple of nations. Vacillations sought after in any beneficiary nation will then have a more declared impact on receipts of the sending out nation than if fares were more differentiated among beneficiaries.

Alfarraj, Drew & AlGhamdi, (2012) pointed out that there is a "popular supposition

in the literature" that countries especially dependent on the United States market for the sale of their exports are especially subject to fluctuations in their export proceeds". Mobbs, Taib & Wallace, (2012) suggested that dependence on the United States as an export market was typical of most Latin American countries but that colonial links have an important bearing on the direction of other countries' exports, with exports of the French Franc Zone countries going mainly to France and exports of countries in the Sterling Area going mainly to the United Kingdom.

As many former UK and French colonies gained independence, they were able to shift away from concentrating on their traditional markets in order to reduce export instability. Such a shift toward market diversification will reduce instability if and only if diversified markets differ in their degrees of instability and/or in the timing of fluctuations for a country's given commodity set. But if markets exhibit no important variations among themselves, geographical diversification may result in no reduction in export instability.

The empirical studies on the causes of export instability have distinguished between what are thought to be important factors contributing to the export instability in the developing countries. These factors can be classified into two categories: (1) factors contributing to instability in world demand and the relation between world market factors and determinants of instability in individual countries, and (2) factors associated with commodity, trade, and geographic concentration. In what follows, we review the empirical literature in both categories.

Data analysis & findings

This section has been divided into two broad categories that are company's Performance analysis and second is company's export impact on the Saudi Arab's overall export growth.

Company's performance analysis:

SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none">• The strong technology research and development ability and the high-end additive technology.• The national company• The strong brand influence and good corporate image.• The professional and highly qualified staff.• The high level of supply chain management• The good relations of strategic alliance with the major Aluminum Companies.	<ul style="list-style-type: none">• The high cost• The high price positioning• The late channel construction

Opportunities	Threats
<ul style="list-style-type: none"> Actively expand the market and take the absolute advantages in the fast growing in the Asia-pacific region. Develop the market by taking advantage of good financial position Increase the production and exploration business of aluminum The rising demand of the high quality aluminum producers production and sales Raise the level of productivity and sales due to the trend of the concern for the environmental protection in the world The demand growth because of the vigorous development of auto industry The reducing cost of the communication Use the technical and financial technology and resources to improve the aluminum exploration and production business. 	<ul style="list-style-type: none"> Enhance the control of the market for the falling market demand owing to the financial crisis Increase the investment, especially the investment on the business of crude aluminum Make efforts to improve the business of aluminum development and exploitation Development and exploitation of the declining industry profit margins Improve the level of production for the intensified competition in the industry because of the requirement of scale economy The complex consumer behavior

In the process of the development of Ma’aden Aluminum Company, it particularly attaches great importance on the quality of the products and the reputation of the enterprise. And the environmental, healthy and safe social responsibility is a top priority. In my opinion, Ma’aden Aluminum Company should take the following recommendations. At first, Ma’aden Aluminum Company should formulate the long-term strategy for the target markets and customer choice. On the basis of the division of the target market, Ma’aden Aluminum Company can lay a good market for the layout in order to realize the long-term and stable development of the company. Then Ma’aden Aluminum Company should consistently adhered to and uphold its commitment to the product and company reputation, which will provide not only the quality assurance, but also the security guarantees. In the following, Ma’aden Aluminum Company should make the fully analysis of its characteristics and its market positioning use the different sales channels for the different products according to its different features of the products and customers. Finally, Ma’aden Aluminum Company should implement the promotional strategy to cause the attention and interest of the customers, which will improve product and enterprise visibility and strengthen the development.

Financial analysis

Ratio analysis is being viewed as very valuable technique for analyzing the financial position of the company, and is very useful in analyzing the performance of the company with is competitors, and within the industry. In addition to this, some of the primary benefits of using ratio analysis for company are described below:

Profitability Ratios	12/31/2013	12/31/2012	12/31/2011
ROA % (Net)	4.56	7.52	9.26
ROE % (Net)	8.88	14.81	19.47

ROI % (Operating)	15.63	23.98	28.59
EBITDA Margin %	7.67	10.8	11.77
Calculated Tax Rate %	50.8	46.63	43.97

Liquidity Ratios	12/31/2013	12/31/2012	12/31/2011
Quick Ratio	0.75	0.83	0.85
Current Ratio	1.11	1.18	1.17
Net Current Assets % TA	2.82	4.93	4.96

- **ROA = Return of Assets**
- **ROI = Return on Investment**

Debt Management	12/31/2013	12/31/2012	12/31/2011
LT Debt to Equity	0.2	0.16	0.18
Total Debt to Equity	0.25	0.2	0.22
Interest Coverage	21.46	29.62	41.54

Asset Management	12/31/2013	12/31/2012	12/31/2011
Total Asset Turnover	1.28	1.36	1.45
Receivables Turnover	7.51	6.96	6.76
Inventory Turnover	12.55	13.25	13.6
Accounts Payable Turnover	10.89	11.01	12.22
Property Plant & Equip Turnover	2.52	2.96	3.29
Cash & Equivalents Turnover	32.54	32.2	39.17

Per Share	12/31/2013	12/31/2012	12/31/2011
Cash Flow per Share	6.43	7.35	5.92
Book Value per Share	28.5	29.77	27.1

According to the ratio analysis of last three years, it is found that the company performance is excellent and the financial position of the company is sound. The financial statement of the company reveals that the company is efficiently utilizing its assets and equity to generate profits. It is suggested to investors to buy.

Company's Valuation

In order to further gauge the financial stability of Ma'aden Aluminum Company and probability of the company defaulting, the Altman Z-score model (1968) is applied. Based on five financial ratios calculated from annual report data it is calculated as follows:

$$\text{Z-Score} = 1.2A + 1.4B + 3.3C + 0.6D + 1.0E$$

Ma'aden Aluminum Company Altman Z-score model inputs

Financial Ratio	2013
Working Capital/Total Assets (A)	0.028
Retained Earnings/Total Assets (B)	0.082

Earnings Before Interest & Tax/Total Assets (C)	0.19
Market Value of Equity/Total Liabilities (D)	1.656
Sales/Total Assets (E)	0.675
Z-Score	3.39

(Source: Reuters)

The Altman Z-score for Ma'aden Aluminum Company is **3.39**, which is higher than the threshold of 2.99, therefore according to the Altman Z-score model (1968) the company can be considered as safe based on its financial figure.

Expot impact of Ma'aden Aluminum Company:

In order to find out the impact of the export of Ma'aden Aluminum Company on the non-oil exports of Saudi Arabia, a regression analysis has been carried out. The total non oil exports of Saudi Arabia have been taken as dependent variable while the exports of Ma'aden Aluminum Company have been taken as independent variable. It is noted that the non-oil exports have been taken up for this research as the results of the study might be useless if the total exports of Saudi Arabia would be taken as dependent variable because the major export of Saudi Arabia is oil that makes around 80% of country's total exports.

Regression Analysis

The regression is a complex statistical technique whose purpose is to predict the value of an outcome or as a dependent variable would be Non-Oil Exports of Saudi Arabia. These are based on one predictor variable that is Exports of Ma'aden Aluminum Company. Educational researchers and social scientists used regression to study a wide range of phenomena. To conduct their analysis using the Statistical Package for the Social Sciences, whose acronym corresponds to SPSS. This statistical package can perform regression analysis that could intimidate a beginner, but with a good understanding of the procedures and the object under study, the researcher can advise students and novices to properly interpret these results.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.167 ^a	.028	.018	.82944

a. Predictors: (Constant), Exports of Ma'aden Aluminum Company

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression Residual Total	1.938 67.422 69.360	1 98 99	1.938 .688	2.817	.096 ^b

a. Dependent Variable: Non-Oil Exports of Saudi Arabia

b. Predictors: (Constant), Exports of Ma'aden Aluminum Company

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.583	.308		8.394	.000
	Islamic banking growth	.160	.095	.167	1.678	.096

a. Dependent Variable: Non-Oil Exports of Saudi Arabia

Check the model summary and pay special attention to the value that is in the box

R. This indicates how much of the variation in the value of the dependent variable explained in a regression model. In this case, the regression of Non-Oil Exports of Saudi Arabia and Exports of Ma'aden Aluminum Company in the R box a figure 0.028. This indicates that 2.8% of the variation in Exports of Ma'aden Aluminum Company can be explained by the variability in the Non-Oil Exports of Saudi Arabia. Determines the linear relationship between the variables in the regression examining table analysis of variance (ANOVA) that is gives by the SPSS. Note the value of the F statistic and its significance level (denoted by the "Sig" value). If the F value is statistically significant at a level of 0.05 or less, this suggests a linear relationship between the variables. The statistical significance level of .096 shows that there is a 90.4 percent chance that the relationship between the variables is not due to chance. This is the level of significance accepted in most fields of research. Studied the coefficient table to determine the value of the constant, it summarizes the results of the regression equation. Column B in the table gives the values of the regression coefficients and constant, which is the expected value of the dependent variable as independent values are zero.

Study the values of the independent variables in the table of coefficients. Values in column B represents the degree to which the value of the independent variable contributes to the value of the dependent. In this case, a B of 2.583 of Exports of Ma'aden Aluminum Company suggests that each additional growth, the Non-Oil Exports of Saudi Arabia increases to 0.16. T values of coefficients in the table indicate the statistical significance of the variable. In general, a value of t of 2 or more indicates statistical significance. In this case the value of t is 8.394, which means the relationship is significant. Here,

Non-Oil Exports of Saudi Arabia = 2.583 + 0.160(Exports of Ma'aden Aluminum Company)

Findings

Saudi Arabia has recently acknowledged its massive minerals resources, and has set goals to develop its minerals and mining sector to become the third pillar of the economy after hydrocarbons and petrochemicals. Saudi Arabia set to become major aluminum exporter in the coming five years from now; and it is on the verge of becoming a major upstream player in the global aluminum industry. Upon completion, three announced aluminum smelters will supply roughly 2.44 million metric tons per annum of primary aluminum by the start of 2016.

There is a growing demand for aluminum from countries fast-growing economies such as India and China, and those that seek to achieve maximum well-being of their people. Aluminum uses go in favor of a number of sectors such as construction, transport, packaging and general engineering. All of this leads us to predict that the demand for aluminum production could reach 50 million tons by 2020. Currently, Saudi exports more than 55% of the total production capacity of taking advantage of the large oil and gas quantities and reasonable prices.

Ma'aden Aluminum company have expanded to be among the world's largest, modern primary smelters without compromising on quality, the average metal purity being 99.90% or better. The Strategic Plan for 2015, recently developed demands that

companies within the country should update and align to environmental regulations with the best practice that is achieved globally. Human resources in Ma'aden Aluminum Company has first priority as well in its plan to reduce the dependency on an expatriate workforce in the aluminum industry.

With the expansion in the production of aluminum so more waste will be generated, which calls for Ma'aden company to address this waste and put it in a landfill, and to ensure that land filled of these wasted materials is not an environmental hazard. To demonstrate the effectiveness of these environmental safeguards, primary smelters round the world will often operate a farm, gardens or similar enterprise on the periphery of the smelter to prove that flora and fauna are not adversely affected by the plant and any emissions. This is true in the Ma'aden primary smelters.

Conclusions

As with many other less developed countries, Saudi Arabia has experienced wide variations in export proceeds leading to fluctuations in its national income. In the real world, lack of knowledge about possible revenue in the future, combined with a time lag between investment and return to investment, make uncertainty one of the most important factors influencing economic behavior. Uncertainty, generated by instability in export earnings, can be expected to adversely affect public and private investment. Not surprisingly, therefore, diversification in international trade has become a favorable goal for Saudi economic planners and policy-makers for the past ten years.

This study presents a portfolio selection model that generates various efficient portfolios for different levels of risk and applies it to the problem of instability in export proceeds. Specifically, the objectives of this study were: to develop a model for portfolio selection to investigate the impact of different diversification strategies; to apply the model using the most important non-oil export commodities and receiving markets; and to provide Saudi planners and policy-makers with a systematic view of the possible optimum export portfolios and of the risk-return trade-off under three alternative scenarios. The major results of this study are:

1. Under the low risk scenario, expansions of three export commodities shares were found to contribute substantially to the reduction of instability in export proceeds. These were prepared foodstuffs and beverages, pearls and precious metals, and base metals. Increasing export shares to seven receiving markets (Yemen, Jordan, Iran, Syria, Lebanon, Egypt, and the United States) were found to have a major impact on the reduction of instability in export earnings. Nearly 85 percent of the Saudi total exports would be received by these seven countries.
2. Under the medium risk scenario, export earnings were found to have stable patterns if the total exports consist of four export commodities: base metals, animal products, prepared foodstuffs and beverages, and chemical products. Apparently, two export commodities, prepared foodstuffs and beverages and base metals, continued to have a considerable influence over the process of reducing instability in export proceeds. It was also found that only four receiving markets (Syria, Lebanon, Yemen, and Iran) were the first to be considered if planners and

policy-makers were to reduce disturbances in export earnings. Like the low risk scenario, 85 percent of the total Saudi exports are recommended to go to these four markets under the medium risk scenario.

3. In general, under the high risk scenario, the composition of the efficient export portfolios did not change from that of the medium risk scenario, but it consisted of lower optimal shares for base metals, prepared foodstuffs and beverages, and animal products, with less production in chemical products. Similarly, only three receiving markets (Syria, Lebanon, and Iran) were found to be profitable in terms of reduction in instability. Nearly 70 percent of the total Saudi exports would be received by these foreign markets.

Recommendations for further studies

Finally, this research is focused on the Ma'aden Aluminum Company and its exports. Only Saudi Arabia was the focus for this study. In future, the researcher might also include the whole spectrum of Arab countries in the research. The studies in future can focus on different countries and for examining the export's impact for the Gulf Region. Current research being focused on a single company is limited to specific results which might not be equally useful for the other companies and countries. In future the studies should focus to take up multiple case studies approach to diversify the results and present the findings in more concrete and highly organized manner. In future, researcher s can also focus the aluminum production and its impact on the environment.

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