Poverty in the Kingdom of Saudi Arabia and its statistics

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Abstract

The report provides the statistical information about the poverty in the Kingdom of Saudi Arabia from December 2007 to October 2008. It is the largest survey in the country which provides the statistics information of various fields such as money and banking statistics, investment fund, public finance, foreign trade, national account, share market, government specialized credit institutions, prices and cost of living index, balance of payment and international investment position and oil statistics. The appropriate data analysis tool is chosen and it is named as SPSS. The balance sheets of the Saudi Arabian Monetary Agency (SAMA) provided the statement of revenues and expenses. These records are audited. The given data are examined and conclusion can be driven from obtained outputs from the graphs, bar charts, pie charts and histograms.

Keywords: Poverty, Kingdom of Saudi Arabia, public finance.
1. Introduction

The main aim of this project work is to provide a statistical information regarding the poverty in the Kingdom of Saudi Arabia. The analysis process will be taken from December 2007 to October 2008. As it is the largest survey in the country, the data will be analyzed from various fields. The research information provides the statistics information from the fields of money and banking statistics, investment fund, public finance, foreign trade, national account, share market, government specialized credit institutions, prices and cost of living index, balance of payment and international investment position and oil statistics. An appropriate data analysis tool will be chosen for this project. The tool name is SPSS. It represents an efficient statistical software. It will provide a solution for the problems of research and business. This tool will be applied for various purposes such as hypothesis analysis, testing, and reporting and ad-hoc analysis. To manipulate and analyze the high level complex data, SPSS is the most suitable statistical software package. It is the very powerful statistical package because, using this SPSS tool, several statistical procedures can be easily performed such as IQRs, means, averages, medians, standard deviations and correlations. As the SPSS is a data collection tool, the data entry screen is similar to other software such as spreadsheet. The tasks of the statistical analysis and various data management operations can be performed by using the SPSS efficiently (SPSS survival manual: a step by step guide to data analysis using IBM SPSS, 2013). The data management process consists of following operations.

- Selecting the cases
- Reshaping the file
- Derived data creation

The base package consists of descriptive statistics, prediction of numerical outcomes, bivariate statistics and prediction of identifying groups. It can be operated as a cross-disciplinary software package, because it has the advantage of add on modules and ease of use.
1.1 Objective

- The main objective is to analyze the given data about Poverty in the Kingdom of Saudi Arabia and its statistics using SPSS and to understand the working of SPSS software.
- According to the data types, appropriate statistical tests can be applied. Throughout the statistical analysis, the output can be interpreted.
- To estimate the given data, appropriate variables, labels and tables will be segregated.
- The SAMA (Saudi Arabian Monetary Agency) will provide the expenses and revenue statement in the balance sheets. These records will be audited.
- The second part will be the Literature Review and in this section the research methodology and software used in previous work will be provided.
- In third part, there are two main parts such as descriptive data analysis and test analysis.
- The given data will be examined and conclusion can be driven from the obtained outputs from the graphs, bar charts, pie charts and histograms.

2. Literature Review

In 2016, the poverty eradication campaign in Saudi Arabia had analyzed. The rules and laws are observed according to the gender disparities. In the building and development process, the each and every community has been included. All individual citizens and society could work with the government should work together to overcome the problem of poverty eradication. These problems could be analyzed by using various data analysis tools. So that the department of economy could increase the social work by effective planning, economic incentives, building community and thinking with more flexible. Saudi government has conducted many poverty alleviation programs for restructuring the problems that are previously happened. In this paper,
the new strategy was discussed to prevent the people from death rates and sufferings (Poverty Eradication campaign in Saudi Arabia, 2016).

In 2015, the authors Ahmad Al-Asfour and Sami A. Khan presented a paper about the workforce localization, in Saudi Arabia. In this paper, the issues and challenges are observed. The localization of Human resources is called as Saudization. It was started in the private and public sectors of the Saudi. The workforce efficiency and the skill development was analyzed. To eliminate the poverty in Saudi Arabia, an efficient framework was designed. So that the number of employees increased. Thus throughout this paper, the present scenario of Saudization against the poverty was discussed. The long term problem of Saudi Arabia is increased labor cost and decreased productivity (Poverty Eradication campaign in Saudi Arabia, 2016).

In 2012, the author Shakir Ahmed Alsaleh presented a paper on Gender Inequality in Saudi Arabia. In this paper, the research and discussions based on the reliable collective information that are gathered from the statistics. Various research methodologies were applied for data collection and data analysis process. The research mainly focused on the status of the gender inequality in health, employment, and poverty and education system in Saudi Arabia. The survey said that the responsibility of the government is that providing solution against the poverty and educating women. Because it is a key social function. The statistical data was analyzed by using various data analysis tools (Al-Asfour and Khan, 2013).

3. Sampling Protocol

3.1 Research Methodology

The research methodology is 'statics'. For the complex analysis process, this methodology provides the approximate solution. Because it is the most useful tool rather than others. Generally, statistics can be a practice of using the empirical data in the quantitative form and it is
the branch of applied mathematics. This methodology consists of three important steps which are given below (Utwente.nl, 2017).

- Data collection
- Data Summarization
- Analyzing of data

The analysis process can be done by the 'Quantitative Observation' (Zhang, Fang and Hu, 2014). The data collection is done by using the systematic observation. The given data are analyzed with some questionaries’ of "How" and "Why". When comparing to other methodologies, it is a very quiet and simple way for data collection. The given data are experimented by three different techniques such as laboratory experiments, natural experiments and field experiments.

3.1.1 Data Collection

Data Collection is the process of collecting the statistical data that has to be used for data analysis. There are four methods of data collection

- Census
- Sample Survey
- Experiment
- Observational Study

**Census**

Census is a type of data collection that involves the study which gets data from everyone. It’s a cost and time consuming process, so probably it is not practical in most case. Census data can be either accurate or approximate as it’s a long term process.
Sample Survey

Sample Survey is like a case that gets data from the particular set of a field not in all sets, to evaluate the attributes used for the survey.

Experiment

An experiment is said to be a study which has some of the limitations. In this case, Researcher tries to recognize the major factor and future impact relationship. Experimental study is always done in practical in most of the studies. It also gives accurate results as it is done practically.

Observational study

Observational study is similar to Experimental study in which Researcher recognizes the factor and impact but the researcher cannot control or give limits that how subjects are assigned and which should be used to rectify it.

3.1.2 Variables

- Identification of relationship between variables
- Comparison of variables
- Identification of difference between variables

Identification of relationship between variables

Variables are the parameters which are used to do data analysis. First and foremost thing of data analysis is to find the relation between two variables that are being used for data analysis. Related variables are known as dependent variables and variables that are not related are called as independent variables (Leatham, 2012).

Comparison of variables
Comparison of variables is done to produce the feasible research report for the statistical data. Comparison results shows whether the variables are dependent or independent.

**Identification of difference between variables**

If any difference exists between the variables then the variables are said to be independent. Independent variables do not associate with each other.

**Dependent Variables**

Dependent Variables are the variables which has relationship with one another. Dependent variables are associated to one another (Deshmukh, 2015).

In this report, in the Share Market statistics analysis two variables namely Number of shares traded and value of shares traded are used. These are called dependent variables because when the value of share gets increased, no of shares will get increased. Shareholders used to buy the shares if its values get high.

**Independent Variables**

Independent Variables are the variables which has no relation between one another. Independent variables have no association.

In this report, in the cost of living index Clothing & footwear and Food & Non-alcoholic beverages have no relation. As the cost of one increase, the cost of other will not get increased. So these are called independent variables (Roscoe, Schlichenmeyer and Dube, 2015).
3.1.3 Statistical Methods

Descriptive statistics provides basic geography of the data that is being collected from an experimental case study in various ways (Gillespie, 2015). Quantitative Data can be summarized in many ways. Some of the ways are as follows

- Tables
- Graphical Representation

Tables

Tables involve frequency distributions, cross tabulations, stem and leaf plots. Frequency distribution is the commonly used method which provides relative frequency and relative frequency distribution tables. A frequency distribution is the way to summarize the data in the form of tables consists of some ranges of the data, and the frequency of that data falls in that particular specified range.

Graphical Representation

Graphical Representation is the representation of data in the form of histogram, pie-charts, bar-charts and dot plot. Histogram is the chart that is vertical where there is two things one parameter in horizontal and another one in vertical. Bar charts has vertical bars that represents the flow of data from x-axis to y-axis for the specified parameters. Pie-charts are circular in shape, which uses various colors or shades to represent the data.

3.2 Software Requirement

The SSPS represents the Statistical Package for the Social Science (Bc.edu, 2017). It is a highly comprehensive system which is used to analyze the data. The complex data analysis can be performed easily by using the SSPS. Because it has an efficient data analysis and
manipulation along with the simple instructions. Both non-interactive and interactive data can be easily manipulated using SSPS package. Any type of data can be read through files and the related graphs, plots and charts can be generated according to the descriptive statistics, distribution and trends and complex statistical analysis. The major advantages over other data analysis tool are given below.

- High score of statistical procedures
- High score of both statistical and mathematical functions
- More flexibility
- High level data handling capability

It can support any type of data format such as alphanumeric, numeric, date, time, dollar and binary.

4. Results and Findings

4.1 Descriptive Data Analysis & Test Analysis

4.1.1 Money Banking Statistics and Insurance

Data about Money banking statistics and Insurance details of Saudi Arabia has been analysed under the basis of various things like monitory base, money supply, circulation of currency and circulation of coins, private sector, public sector, Income velocity, money multiplier, and currency of banks, ATM statistics, syndicated loans, consumer and credit card loans.

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Currenc y</th>
<th>CashInVaul t</th>
<th>Depositofba nks</th>
<th>Deposits with SAMA</th>
<th>Reserve</th>
<th>Total</th>
</tr>
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<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
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<td>5</td>
<td>5</td>
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<td>5</td>
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</tbody>
</table>
Table 1 Monetary Base

<table>
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<th>Mean</th>
<th>2004.00</th>
<th>74660.33</th>
<th>9418.89</th>
<th>31887.52</th>
<th>5654.67</th>
<th>121621.4</th>
<th>37542.19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Std. Deviation</td>
<td>6.205</td>
<td>35012.23</td>
<td>7568.718</td>
<td>26963.058</td>
<td>2644.424</td>
<td>70858.44</td>
<td>28525.64</td>
</tr>
<tr>
<td>Range</td>
<td>20</td>
<td>110739</td>
<td>24981</td>
<td>84278</td>
<td>10267</td>
<td>225611</td>
<td>90270</td>
</tr>
<tr>
<td>Minimum</td>
<td>1994</td>
<td>43038</td>
<td>2134</td>
<td>8280</td>
<td>1760</td>
<td>57313</td>
<td>11762</td>
</tr>
<tr>
<td>Maximum</td>
<td>2014</td>
<td>153777</td>
<td>27115</td>
<td>92558</td>
<td>12027</td>
<td>282924</td>
<td>102032</td>
</tr>
</tbody>
</table>

**Figure 1 Monetary Base**

**Result**

As comparing the results in the Monetary Base, deposit of banks, deposits with SAMA, currency outside banks has been tested and graphic format is shown in the **Figure 1**. When deposit of banks is tested, it is clear that 20000 had been deposited in high rate. So Monetary Base is good in economy.
When comparing circulation of notes from 1984-2014 the above results has been produced. So compared to 1984 usage & 2014 usage No of 500Rls are increased rather than No of 1Rls. It shows that the country has improved economically.
On analyzing the results of value of transactions through the country as compared from 1998-2014, in the 16 years “Customer Payment Values” has been increased drastically. This improvement shows that poverty rate is less in the country.

Customer Payments values are increased from 24,855Rls to 17,221,110 Rls. This shows the growth in Economic Activity.

4.1.2 Share Market Analysis

Share Market Analysis of the country is based on the values and Data of the share market indicators, no of shares traded by the sectors, value of shares traded by the sector, market value of shares, total no of transactions by the sectors, Transactions and purchase of sold shares, transaction through Internet are analysed and testing results are in the graphic format as below.

![Share Market Indicators - No of shares traded](image)

*Figure 5 ShareMarketIndicators-No of shares traded*
V2 represents the Total No of shares purchased and shared through Internet

Number of executed transactions in the share market, No of Shares purchased, Value of share purchased and sold are the compared variables. No of executions is lesser than the no of
shares purchased, value of share purchased and sold. Mean value of the no of shares traded is lesser than the value of the shares traded. So No of shares bought may be low but the value of the shares being bought has the higher value. It indicates that even less number of shares bought but the amount that has been spent is high. So poverty rate is not much as then compared to Share Market Analysis with Money and Bank Analysis.

4.1.3 Investment Fund Statistics

Investment fund statistics data has been analysed from 1991-2014. Domestic and foreign investments are being analysed. No of operating funds had been increased from 52-252. Domestic and foreign funds have drastically risen. It has been shown graphically in the below figure.

![Bar Chart](Figure 8 Foreign Investment)
Figure 9 No of operating investment

Figure 10 Domestic Funds
Open ended and closed ended Investment funds has also been analysed and test results are graphically presented below. Open Ended Assets and Closed Ended Assets are used as parameters. Data from 1996 to 2014 has been tested and test results are produced in Bar Chart below.
4.1.4 Government Specialized Credit Institutions

Government Specialized Credit Institutions has the data about consolidated balance sheets of Government Specialized Credits in the form of assets and liabilities, Government specialized credit disbursements, Loan repayments, Net lending.

Consolidated Balance Sheets of Government specialized credits in the form of Assets and liabilities has been tested and the testing results are graphical represented in the below figure. Credit disbursements, Loan Repayments, Net Lending are some of the main parameters of Government Specialized Credit Institutions.
In the Government Specialized Credit Institute Loan Repayments, two parameters namely Saudi Indus and Real Estate Data has been tested to evaluate the economic level of the
country. As per the result shown in figure 13 and 14, the mean value of real estate is ahead than the Real Estate.

4.1.5 Public Finance Statistics

Public Finance Statistics has been tested and graphed in the basis of State Annual Budget Projection, Annual Government revenues and Expenditures, Budget Appropriations for public Institutions and Public DEBT. Following figures tells about the results of the test analysis.

![Figure 15 Public Revenue and expenditure statistics](image)

Total revenue of the country and total Expenditure of the country has been cross checked and the results are being presented in the form of Graph. Total revenue of the country is lesser than the total Expenditure so it clearly shows that the country has been using expenditures for the welfare of the needy. So country has to be developed much more in Public Statistics.
The above mentioned figure 16 is the Expenditure & Budget appropriated for public Institutions in the country in the year 2014. The Expenditure spent has been specified according to the Institutions.
The above mentioned figure is the public DEBT borrowed from the public DEBT.

4.1.6 Prices and Cost of Living Index

Prices and Cost of Living Index of Saudi Arabia has some of the parameters such as Cost of Living indeces by divisions, Average cost of living index by City, Average cost of living index by Groups and Subgroups, Wholesale Price Index and Cost of living index for all Cities. All the data provided in Prices and Cost of Living Index are tested and test results are produced below in the form of graphical representation.
Figure 18 Cost of living indices by division (Food-non-alcoholic)

Figure 19 Cost of living Index (Clothing & Footwear)
Figure 20 Cost of Living indices (Housing, water, Electricity, Gas and other)

Cost of living indices in Saudi Arabia has been tested on owing to their Basic needs like Clothing & footwear, Food & Non-alcoholic beverages, Housing, Water, Electricity, Gas and other fuels and the test results are produced in the above figures. Other than Footwear and Clothes Basic needs like Housing, Water, Electricity has only less mean and standard deviation.

Finally in Prices and cost of living index, we tested the Average Cost of living index by cities. Test results has been produced in the form graph keeping name of the Cities as X-axis and Inflation rate Annually for the corresponding cities has been set in the Y-axis. So the results are produced graphically in the figure below.
4.1.7 Foreign Trade Statistics

Data for the Foreign Trade of the country has been produced in the form of Imports, Exports and Percentage Change in it, Merchandise Exports, Source of Imports, Direction of Exports, Volume of imports and exports handled, Finance & Guarantee of Saudi Arabia.

In the Foreign trade, Imports in the particular year and percentage in it then the Exports of the corresponding year & Percentage Change in it are all the parameters tested and the results are figured below in the form of graph. Graph has the period (year) as X-axis and the Exports has been produced in the Y-axis.
Figure 22 Foreign Trade-Exports

In the Foreign trade, Imports in the particular year and percentage in it then the Exports of the corresponding year & Percentage Change in it are all the parameters tested and the results are figured below in the form of graph. Graph has the period (year) as X-axis and the Imports has been produced in the Y-axis.
In the Foreign Trade, Merchandise Exports like oil exports, Crude oil, refined products, Petrochemicals, Construction Materials, Agricultural and food products, other goods, Non-Oil Exports are included in it. Including all parameters as overview called Total Exports and the corresponding years, test result has been produced below.
**Figure 24 Merchandise Exports**

Saudi Arabian Kingdom's Non-Oil Trade with GCC countries like UAE, Bahrain, Kuwait, Qatar, Oman are tested and test results are produced in the figure below. UAE and Bahrain leads and Oman serves less in Non-Oil trade.
Figure 25 Non-Oil trade with GCC countries

Saudi Arabia has also Non-Oil trade with Prominent Partners of Arab Countries. Data for Arab Countries trade has also been tested and shown graphically below.
4.1.8 Balance of Payment Statistics and International Investment Position

Balance of payment statistics and International Investment Position has been tested in the form of Balance Payments Summary from 1961-2004, Kingdom Foreign Aid and International Investment Position.

Figure 26 Non-Oil Trade with Arab Countries

Figure 27 Balance of Payment Summary from 1961-2004
Balance of payments Summary, data has been tested in the basis of Sector that are provided and analysis has been done in the form of decades like 1961, 1970, 1980, 1990, 2000 and 2004. Sector names has been plotted in X-axis and Year has been plotted in Y-axis.

*Figure 28* International Investment Position

International Investment Position has been tested and the result is produced in the form of pie chart in the above figure. Direct Investment, Portfolio Investment, Reserve Assets. 2.1 and 2.2 are the subdivisions in Portfolio Investment, 3.1, 3.2 and 3.3 are Direct investments 4.1, 4.2 referred to other investments.

Kingdom’s Foreign Aid has been tested in the form of Loans and distributions, Multilateral Aid, Contributions to Organisations and grand total of all and the result is produced in the form of Pie-Chart.
4.1.9 National Account Statistics

In the National Account Statistics Gross Domestic Product and Expenditure of the corresponding activities, Allocation of GDP, Gross fixed Capital Formation, Annual Changes in GDP, GDP per capita and Government Consumption Expenditure are discussed. These are the parameters tested and results are graphically presented below.
In the above figure GDP and Expenditure at Purchaser Price has been tested and test results are in the form of graph. Exports on gross domestic product has reached its peak and also Private Expenditure is higher than the Government Expenditure.

Allocation of GDP by sectors is defined by Oil Sector, Non-oil Sector (Govt), Non-oil Sector(Private), GDP excluding Import duties, Import Duties, GDP including Import duties, Growth Rate are included and results are presented below in the form of graph.
Figure 31 Allocation of GDP by Institutional Sectors

Annual Changes in GDP by Sectors are tested and graphically represented using Oil Sector, Non-oil sector both in private and Govt. GDP leads and Govt Non-oil is in the last position.
4.1.10 Oil Statistics

Total sales of Crude Oil and Natural Oil

The below figure shows that the total sales of crude oil and Natural oil from 1962 to 2013. The sales for both oil are gradually increased at each year. From the year 1989 to 1995, the sales remained the same there was no growth in the sale of Crude oil and Natural Gas.
Saudi Crude Oil Production

The below figure shows that the oil production in Saudi. There was a little bit change in each year. The highest oil production in Saudi was on 1966.

![Diagram showing Saudi Crude Oil Production](image)

**Figure 34 Saudi Crude Oil Production**

Saudi Crude oil Exports by destination

The Exports of Crude oil in Saudi are calculated based on the destination from the year of 1985 to 2014. The highest volume of Crude oil was exported in the year of 2012. In Asia and its region, the crude oil sale was grown.
Saudi Exports of Refined Products By Destination

The production of refined products are analysed through the graph which is given below. In Ocean Asia, the highest refined products are produced. But in other countries productions of the refined products are lesser when comparing to others.
Domestic Consumption of Refined Products, Crude Oil and Natural Gas

The below graph shows that the survey of production of refined products in 2014. The Production of fuel, diesel, and gasoline, Naphtha, LPG, Kerosene, Asphalt and Coke are calculated. Among them the highest production was done for diesel and the lowest production was LPG.

![Figure 37 Production of Refined Products](image)

Domestic Consumption of Refined Products, Crude Oil and Natural Gas

The below graph shows that the consumption of LPG by public and Oil Industry. The sub total consumption is also analysed. The highest LPG consumption was done on 2012.
Figure 38 Consumption of LPG

The below graph shows that the consumption of Natural by public and Oil Industry. The sub total consumption is also analysed. The highest natural gas consumption was on 2012.

Figure 39 Consumption of Natural Gas
The below graph shows that the consumption of other refined products. The Sub total, Grand Total and change percentage are analyzed. The sub total consumption is also analyzed. The highest consumption was on 2012 and the highest range of product consumption is 1,400,000.

![Graph showing consumption of other refined products](image)

*Figure 40 Consumption of Other Refined Products*

**Saudi Aramco Production of Natural Gas Liquids**

The below graph shows that the Saudi Aramco production of the natural gas liquids. The annual production, change percentage and Average Daily production was analysed. At the end of 2013, the annual production was increased to 455.90 and the average productivity is 1.25%.
Spot Prices of Saudi Crude Oils

The below graph shows that the spot prices of Saudi Crude Oils When comparing to Arabian light, Arabian Medium and Arabian heavy, the price of the Arabian light products are increased to above 40%.

Figure 41 Saudi Aramco Production of Natural Gas Liquids
4.1.11 Other Miscellaneous Statistics

1. General Education-Number of Students

The below graph shows that the number of student studying in primary schools. In 1414, the highest count of the primary school students are between 1100000 and 1200000.
The below graph shows the number of students in Intermediate. When analyzing the given data, the highest count of intermediate schools between 400000 and 450000. The number of students is increased gradually.

Figure 44 General Education - Number of students in Intermediate
The below graph shows that the number of student studying in secondary school. When analyzing the given data, the highest count of secondary schools between 200000 and 220000. The number of students is increased gradually.

![Graph showing number of students in secondary school increasing gradually.](image)

*Figure 45 General Education - Number of students in Secondary*

The below graph shows that the total number of teachers working in Primary schools. More than 3250000 teachers are working in primary schools according to the year of 1414.

**Total:**
2. General Education-Number of Teachers

The below graph shows that the male and female teachers of the primary schools. When comparing to Male teaching staffs, the count of the female teaching staffs is low. The total number of teachers are also calculated as 150000.

Figure 46 General Education - Number of Teachers in Primary

![Figure 46 General Education - Number of Teachers in Primary](image-url)

Figure 47 General Education - Number of Teachers in Primary

![Figure 47 General Education - Number of Teachers in Primary](image-url)
The below graph shows that the male and female teachers of the intermediate schools. When comparing to Male teaching staffs, the count of the female teaching staffs is too high. From the year of 1407 to 1414, the count of the male and female teachers are increased from 10000 to 30000 and from 30,000 to 60000 respectively.

![Graph showing the number of male and female teachers in intermediate schools from 1407 to 1414.]

*Figure 48 General Education - Number of Teachers in Intermediate*

The below graph shows that the male and female teachers of the secondary schools. When comparing to Male teaching staffs, the count of the female teaching staffs is too high. From the year of 1407 to 1414, the count of the male and female teachers are increased from 5000 to 15000 and from 10,000 to 30000 respectively.
3. General Education - Number of Primary Schools

The below graph shows that the total number of primary schools. In 1407, the count of the primary schools is 8,012. Then it is increased into 10711 in 1414.
The below graph shows that the total number of intermediate schools. In 1407, the count of the intermediate schools is 2,456. Then it is increased into 4,431 in 1414.

Figure 51 Number of Intermediate Schools
The below graph shows that the total number of secondary schools. In 1407, the count of the primary schools is 990. Then it is increased into 1915 in 1414.

![Figure 52 Number of Secondary Schools](image)

The below graph shows that the total number of schools in Saudi. In 1407, the count of the schools is more than 10000. Then it is increased into more than 15,000 in 1414.
Total number of students, staffs by administrative regions

The below graph shows that the total number of students in Saudi. The mean value is 748801.64, the standard deviation is 1314244.376 and the value of N is 56.

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**Figure 53 Total number of Schools**

**Figure 54 Total number of students**
The below graph shows that the total number of male students in Saudi. The mean value is 376237.25, the standard deviation is 659639.908 and the value of N is 56.

![Male Student Graph](image)

*Figure 55 Total number of Male Students*

The below graph shows that the total number of female students in Saudi. The mean value is 372564.39, the standard deviation is 654699.567 and the value of N is 56.
The below graph shows that the total number of schools for male students in Saudi. The mean value is 2216.21, the standard deviation is 3829.278 and the value of N is 56.
The below graph shows that the total number of schools for female students in Saudi. The mean value is 2216.21, the standard deviation is 3829.278 and the value of N is 56.

![Graph showing total number of schools for female students in Saudi](image)

**Figure 58 Total number of Schools for Female**

The below graph shows that the total number of schools in Saudi. The mean value is 4764.32, the standard deviation is 8255.761 and the value of N is 56.
The below graph shows that the total number of male teachers in Saudi. The mean value is 33782.43, the standard deviation is 58873.824 and the value of N is 56.

Figure 59 Total number of Schools

Figure 60 Total number of Male Teachers
The below graph shows that the total number of female teachers in Saudi. The mean value is 38937.14, the standard deviation is 68139.129 and the value of N is 56.

**Figure 61 Total number of Female Teachers**

**Figure 62 Total number of Teachers**
Higher Education - Number of New Students

The below graph shows that the count of Ph.D. male and female from the academic year of 1434/1435 to 1416/1417.

![Graph showing the count of new Ph.D. students](image)

*Figure 63 Number of New Ph.D Students*

The below graph shows that the count of fellowship degree holder male and female from the academic year of 1433/1434 to 1418/1419.
The below graph shows that the count of Higher Diploma degree holder male and female from the academic year of 1434/1435 to 1416/1417.

**Figure 64 New Fellowship students**

**Figure 65 New students in Higher Diploma Male**
The below graph shows that the count of Bachelor degree holder male and female from the academic year of 1434/1435 to 1416/1417.

![Graph showing the count of Bachelor degree holder male and female from academic year 1434/1435 to 1416/1417.]

*Figure 66 New Students in Bachelor Degree*

The below graph shows that the count of Master degree holder male and female from the academic year of 1434/1435 to 1416/1417.
The below graph shows that the count of Intermediate Diploma degree holder male and female from the academic year of 1434/1435 to 1416/1417.
The below graph shows that the total number of new male and female students.

![Graph showing the total number of new male and female students.]

*Figure 69 Total number of new Male and Female*

**References**


