

MIS in Small Industry: Sanitary Ware in Saudi Arabia

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Abstract— Saudi Arabia is a developing country with a good infrastructure for small to medium sized industries. Some of these industries are using a range of MIS tools and systems to manage their businesses. In this article we look at the involvement of MIS systems and technology in the small industry in the Kingdom of Saudi Arabia. In particular we analyse the case of sanitary business industry in Saudi Arabia. To measure the success rate and improvements in the small sized industry, facilitated by the MIS technology and tools, we present an analysis of a comprehensive survey conducted on a large number of small sanitary organisations in the West Coast of Saudi Arabia during the course of this research.

Keywords—MIS, SME, GDP, Saudi Arabia, Sanitary Ware Industry

I. INTRODUCTION

The Kingdom of Saudi Arabia (KSA) is one of the richest countries in the world. The export of petroleum has contributed significantly to the economic growth of the Kingdom. Because of her economic power, the Kingdom is also a member of G20. The G20 countries are usually the ones whose economies are highly influential in the world. These countries together have a share of more than 75% of the global trade [1]. Therefore, it would be fair to say that Saudi Arabia is economically, very powerful and influential. The International Statistical Institute [2], does not include Saudi Arabia in the 2014 List of Developing Countries, and a former US diplomat [3] regards the kingdom as a semi developed country. According to the World Factbook (also known as the CIA World Factbook), the has a leading role in the Organization of the Petroleum Exporting Countries (OPEC), as can be seen in [4].

An important advantage of KSA, is that it is home to the Kaaba, which mark, which marks the direction (Qibla) of over one and a half billion Muslims in the world. Makkah (formerly known as Mecca), an ancient city of world and a part of Saudi Arabia, is the Centre of major annual pilgrimage, known as the Hajj.

Hajj attracts over three million pilgrims each year (consider a citation) Details of Hajj and Umrah pilgrimages are provided by Yamin and Albugami [5]. Altogether, major (Hajj) and minor (Umrah) pilgrimages, account for over twelve million visitors to Makkah every year. These pilgrims significantly boost the economy of KSA. Hajj and Umrah in 2012 generated over 16 billion dollars [6]. If we consider the overall benefits from the pilgrimage like; travel, accommodation, shopping and other activities, the injection to the Saudi economy would be considerably higher. However, the government of Saudi Arabia is not a direct beneficiary from Hajj and Umrah as it does not impose any visa fees or any other kind of taxes on the incoming pilgrims. On the contrary, the Kingdom spends billions of dollars in construction and maintenance of the holy sites every year. For example, currently a rail link is under construction to facilitate more efficient transport for pilgrims and citizens. This project is costing the Kingdom over forty-five billion dollars [7]. Another project is the expansion of the holy mosques in Makkah and Madinah (see Pic 1). Re-development of holy sites around Makkah are taking place at a cost in excess of twenty-billion dollars [8]. Understandably, Saudi Arabia is regarded as an important country in the world and one of the most influential countries in the Middle East.

The growth of small and medium industry in Saudi Arabia was slow to begin with but as the economy boomed, industrial growth followed. Now, in addition to home-grown businesses, the Kingdom has a significant number of industries in various parts of the country. However, still Saudi Arabia's industries are not comparable to those of developed countries. Details of the Small and Medium Enterprises (SMEs) can be found in [9]. There are many studies, for example [9], which have previously been conducted to measure the business and economic activity of various sectors of Saudi industry. The aim of our study in this paper is carry out the study on the impact of MIS in the sector of small industries in Saudi Arabia. We have chosen the case of Sanitary Ware, which represents small industry. To analyse the impact of MIS in Sanitary Ware, we have surveyed 80 businesses, whose analysis will be presented.



Pic 1: Expansion of Holy Mosque in Makkah

II. SAUDI SMALL BUSINESS ENTERPRISES

Generally SMEs play important role in developing and shaping national economies. The Saudi Arabian SMEs make up 86% of enterprises and account for 33% of GDP. The share of GDP of SMEs of the USA is 50%, France 56%, Spain 57% and Japan 64%. As can be seen, the GDP share of SMEs of Saudi Arabia is much lower as compared to the other countries of G20. A detailed analysis of SMEs and their socio-economic contribution can be found in [10]. According to Okaz [11], a Saudi National Newspaper, Saudi Ministry of Labor has classified businesses into four different categories according to the size of the activities in the enterprise and number of employees: (1) Small enterprises with a maximum of 49 workers, (2) Medium-sized enterprises with a labor size range from 50 to 499 workers, (3) Large enterprises with a labor size ranges from 500 to 2999, and (4) Giant enterprises, which their workers reach or exceed 3,000 workers. However, there is no clear, distinct, and agreed definition globally in categorizing the enterprises. For example, according to the European Commission [12], the type of the enterprise in the European Union can be determined by two main factors, and these factors are (1) the number of employees and (2) either the turnover or the balance sheet total. There are three categories of the SME enterprises and they are as follows:

- The first and the smallest enterprise would be Micro, and it should not have more than 10 employees or more than two million Euros.
- The second category of an SME's enterprises would be the small enterprise, which should not have more than fifty employees or more than ten million Euros.

- As for the third enterprise, named medium enterprise, and it should not have more than 250 employees or more than fifty million Euros.

The details are available in the Table 1, and the details can be found in [12].

Table 1
SME in the European Union

Company category	Employees	Turnover	or	Balance sheet total
Medium-sized	< 250	≤ € 50 m		≤ € 43 m
Small	< 50	≤ € 10 m		≤ € 10 m
Micro	< 10	≤ € 2 m		≤ € 2 m

The Saudi Arabian government has realised the importance of enterprise contribution of the SMEs to the national economy. Therefore, the kingdom has developed some constructive ways to finance the SMEs. One of these ways is to finance small enterprises and entrepreneur projects. The king of Saudi Arabia established the Centennial Fund during the centenary celebrations of the opening of Riyadh, the capital of Saudi Arabia. This fund provided a much needed help for the small businesses and is a kind of interest free loan. In this manner the ambitious young Saudi citizens attain financial independence free and do not have to depend on the commercial banking sector [13]. The Program also brings down the national unemployment rate and provides highly needed support to the development of the local economy. To regulate financial program, a specialized committee is in place and the operation are benchmarked with the existing funds in the other countries of the developed world [13].

Another way to finance SMEs is Kafalah. As for financing existing SMEs, the Kafalah [14] program was established in 2004. It is a kind of guarantor program whereby the government provides seventy percent of risk coverage of the debtor to the lenders. In this manner, many entrepreneurs can get funding to start their dream business, with virtually no assists of their own. The Kafalah program supports small and medium-sized enterprises that are economically feasible. These Enterprises provide details of their business and budget but not the required guarantees for the financing bodies. The Kafalah program encourages banks to finance small and medium (SME) enterprises, which have sound and feasible plans to succeed in their business. For details, see [14].

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III. SAUDI CONSTRUCTION INDUSTRY

The construction industry has been evolving in Saudi Arabia and has triggered rapid growth in Saudi Arabians oil revenues. During this economically prosperous period, mainly due to the growth in oil-derived revenue, many construction companies have been established. The fact book website (also known as the CIA World Factbook) has a discussion on the Saudi Arabian economy which mentions that the Saudi government wants to spread the development of the economy by spending more than \$373 billion between 2010 and 2014 on social development and infrastructure projects. Moreover, it is asserted that the government is targeting to develop six "economic cities" in different provinces of the country to promote foreign investment, see [4]. As a result, the extraordinary government spending has become one of the main factors of the exhilaration of the Construction sector. The development is still in progress. Fig 1 provides a snapshot of the investment in the construction sector. For details, see [15]

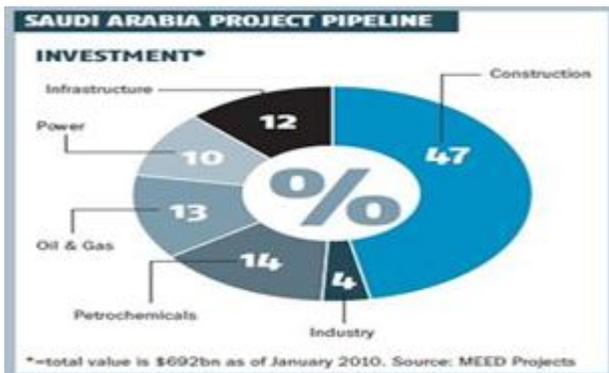


Fig 1 Investments in construction sector (Source: MEED)

Another factor would be the need for the housing requirement to match the higher than usual population growth. Jeff Roberts, Construction Editor of MEED magazine, stated in a report that "while analysts and government sources disagree on the extent of the housing shortfall, both public and private sources cite an annual shortfall of 160,000 to 200,000 homes", for details see [15]. This revolutionary development in Saudi Arabias' infrastructure and the construction projects, either public or private, need a massive amount of all kinds of building materials. A sudden increase in imports of such materials was noted since 2007 due to the increase in demand of housing units and project in general.

Since this demand is predicted to increase, the import of the construction materials and sanitary ware are predicted to increase as well. The details are available in Table 2, and the details can be found in [15] [16].

Table 2
homes shortage in Saudi Arabia

NUMBERS	
Current shortage of homes in Jeddah	283,000
Shortfall in housing in Saudi Arabia by 2015	2 million
Average per capita gross domestic product in Saudi Arabia	\$14,871
<i>Sources: Jeddah Municipality; Economy & Planning Ministry</i>	

IV. SAUDI SANITARY WARE INDUSTRY

Randall [17] of the Preservation Alliance for Greater Philadelphia, in 1986 said "For thousands of years, water for washing, drinking, and cooking was hauled from a steam, spring or well (Occasionally, rainwater was collected in cisterns as a source of soft water, preferred for bathing and washing.) Only rarely did advanced cities, such as ancient Rome, have anything like a running water system. Water was hand-carried in buckets from the nearest source into the house, where it was transferred to a variety of tubs and bowls an arduous task by today's standards, but an accepted way of life worldwide". Also, mentioned at further paragraph of same article "GETTING HOT AND COLD WATER from a kitchen or bathroom sink is taken for granted nowadays, yet as little as hundred years ago it was a pure luxury. As recently as 1930, less than one out of ten rural American homes had running water in a bathroom, and only 16% had piped-in water", see [17].

Separate hot and cold taps can provide water for baths, sinks and basins; this procedure is mutual in older installations, particularly in public washrooms/lavatories and utility rooms/laundries. In kitchens and bathrooms, mixer taps are commonly used. In this case, hot and cold water from the two valves mixed before reaching the outlet, allowing the water to emerge at any temperature between that of the hot and cold water supplies.

Mixer taps invented by Thomas Campbell of Saint John, New Brunswick and patented in 1880; details are available in [18]. Nowadays, the majority of new houses built with at least one or more bathrooms. Whereas in the past quite a little houses built were with bathrooms. In the last century, bathrooms were limited to the bourgeois class that can afford them at that time, see [19]. Sanitary ware is a part of construction material, which used mainly in bathrooms, washrooms, lavatories, utility rooms, laundries, shower area and kitchen as well.

A. Details of Sanitary Ware Products

Examples of the sanitary ware products are Washbasin mixers (Faucet) with the following features: single handle (Cold), double handle (Hot and Cold), and mixers with single handle or double handle. High tech sensor faucets that are using the electricity to sense the movement of hands under the faucets aerator and then the water flow start. Details are available in [18]. Another example of the sanitary ware products are washstands or washbasins with pedestals that is mainly made of porcelain. Also, it can be made of wood, Fibre, marble or even stainless steel. It is so much uncommon that you find and home weather in a cities or even in the countryside without having such a product. Details are available in [20]. Yet another example of the sanitary ware products is a flush toilet that disposes of human liquid and solid waste, by using water to flush it through a drainpipe to another location for disposal with flushing mechanisms that causes the water in the toilet bowl to collect and act a seal against sewer gases. Since flush toilets are typically not designed to handle waste on site. Their drainpipes must be connected to waste passage and cure systems. A flush toilet may euphemistically called a Lavatory, a Bog (UK), a pot (US), a water closet (abbreviated "W. C.") or simply a "Toilet". Details are available in [21]. Details of some other sanitary products can be found in [22] and [23].



Fig 2 Washbasin mixer

For thousands of years, water for washing, drinking, and cooking was hauled from a stream, spring or well (Occasionally, rainwater was collected in cisterns as a source of soft water, preferred for bathing and washing.) only rarely did advanced cities, such as ancient Rome, have anything like a running water system. Water was hand-carried in buckets from the nearest source into the house, where it transferred to a variety of tubs and bowls an arduous task by today's standards, but an accepted way of life worldwide, see [17]. Separate hot and cold taps can provide water for baths, sinks and basins; this arrangement is common in older installations, particularly in public washrooms/lavatories and utility rooms/laundries. In kitchens and bathrooms, mixer taps are commonly used. In this case, hot and cold water from the two valves mixed before reaching the outlet, allowing the water to emerge at any temperature between that of the hot and cold water supplies. Mixer taps invented by Thomas Campbell of Saint John, New Brunswick and patented in 1880; details are available in [18]. Nowadays, the majority of new houses built with at least one or more bathrooms. Where in the past quite a little houses built with bathrooms. In the previous century, bathrooms were limited to the bourgeois class that can afford at that time, see [19]. Having mentioned a little introduction about how the sanitary ware in the previous paragraph let us give some more detail about this field in particular. Sanitary ware is a part of construction material, which used mainly in bathrooms, washrooms, lavatories, utility rooms, laundries, shower area and kitchen as well. Examples of the sanitary ware products are Faucets: Washbasin mixers (Faucet) with the following features: single handle (Cold), double handle (Hot & cold), automatic mixers with single handle that can be move horizontally for changing the water flow from hot to cold and vice versa and using a new technology cartridge. High tech sensor faucets that are using the electricity to sense the movement of hands under the faucets aerator and then the water flow start. See Fig 2.

B. Sanitary Ware Companies: An Example

Satwat Al Bena Company with headquarters in Jeddah was founded in 2012 to meet the increasing demand of products in sanitary ware. Being successful in market, the company expanded domestically and covers the western and southern region successfully planted its root in the area by acquiring more than five hundred retail outlets. As a family business, Satwat Al Bena Company by relying on trust on god and the knowledge, experiences and learning of competition and effective presence in domestic markets as well as putting quality improvement of its imported products.

The increase of quality level, products variety (more than 100 types of different products) and innovation in design opened new markets to Satwat Al Bena products. Details are available in [24].

V. MIS AND SMALL BUSINESSES

Use of the Management Information Systems (MIS) in today's business can be seen in all most all kind of businesses. The importance of MIS in business today can hardly be denied by anyone. Advantages of using MIS are huge. MIS helps in timely decision-making and provides Business Intelligence to help plan the top management the business strategy. As an academic entity, MIS has now become a full-flagged department and has assumed a superior role in the teaching and learning in the universities. For its relevance, demand of MIS graduates in increasing. Details of MIS, its role and its importance can be found in many places including [25] and [26].

The success of an industry is directly related to the economic performance of the country. This is truer in case of the small industry given the fact that large businesses now days are multinational. There are many countries that have very little or insignificant presence of small industry in their countries, and hence fall into the list of poor or struggling countries. The GDP of the poor countries is very low as compared to those who have well established small industry. Details in be found in [27]. Sanitary ware in Saudi Arabia is regarded as a small industry. Many of the multinational hardware companies are using MIS to their advantages but their subsidiaries or retailers generally lack this technology. In the next section we provide the details of survey and results of the responses.

By making use of information Technology, firms can be more competitive and can gain more benefits. According to Chinomona [28], these benefits save time, improve accuracy in exchanging information about company goals and strategies, and remove much of the human error inherent in complex and repetitive tasks. Thus, due to reduction of errors, time and money is saved in the process. Subsequently, businesses get to build a competitive edge. An explanation provided in [28] states: "For instance, in strategic purchasing, electronic data interchange (EDI) can be utilised for information exchange related to initiating orders and invoices to suppliers or sending order acknowledgements, order notices or electronic funds transfer (EFT). In this regard, IT fosters the automation of existing processes. In the context of SMEs, IT utilisation in logistics activities and supply chain management is a longstanding concern among entrepreneurs and yet has been a neglected research area."

A. Organizational of Small Sanitary Ware Business

In the recent years of this century, the political, Economic, Social, and technological (known as the PEST factors) have changed the ways of how businesses are being run. The technological factor, for instance, has made it easy for all kind of firms to achieve more efficiency in almost all the fields that is if it is use d in the right ways, though it might be costly at the installation stages. It is true that many benefits could be obtained if a firm implements the information technology; however, not all firms have implemented information technology in their businesses.

Many small sized industries, including *Satwat Al Bena* Company have been using some accounting and sales management software. Some this software is in the form of well-organised vendor provided management Information Systems. To gauge the level of MIS systems usage in the small sized industry including the sanitary warehouses, we have conducted an elaborate survey of 80 industries having presence in the West Coast of Saudi Arabia, which includes the port and industrial city of Jeddah. Here we present a detailed analysis of our survey.

VI. OUR SURVEY

The sanitary ware industry deals with hardware products used in building industry. Many of these companies are multinational having distributors all over the world. Saudi Arabia has good network of distributors and whole sellers of multinational companies. To measure the extent of use of MIS in sanitary ware in Saudi Arabia, we conducted a survey of eighty companies.

We provided the following survey information to the management of small sized industry: Information Systems provide solutions to many problems of the industry. and hence help in managing the businesses by encouraging them to implement programs in order to improve their work efficiency, keep their data safe, organize sales and accounting, increase sales, reduce the risk of losing data, improve business processes, smooth out the work flow, and save databases in smaller archive system (E-Archive). A number of Accounting & Sales systems that are available for small enterprises to use. Examples of these Programs are SMACC, Data Ocean, Al Amen, Al Aseel, SCRIBE, and Delta.

The aim of this survey was to measure the effectiveness of Accounting & Sales systems in sanitary ware enterprises. Information provided by the participants treated confidentially and used for the sole purpose of this research.

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General questions asked the name of the officer, name of the company, contact details, name of the MIS systems used by the company and the location of the company.

A. The Questions

Participants were asked to provide answers on a scale of seven indicators as follows: 1 = Completely Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4=Neutral, 5= Somewhat Agree, 6 = Agree, 7=Absolutely Agree. The following were the survey questions:

1. My company doesn't have an Accounting & Sales system and that makes hard to manage the business

Table 3
Survey Results

Questions	Average	Questions	Average
Question 1	5	Question 8	4
Question 2	4	Question 9	4
Question 3	4	Question 10	4
Question 4	4	Question 11	4.3
Question 5	4	Question 12	4.1
Question 6	4	Question 13	4.7
Question 7	4		

2. I have an Accounting & Sales system and it is suitable for my company needs
3. An Accounting & Sales system is required for smooth functioning of my company
4. My Accounting & Sales comes with functions that exceed my company needs.
5. Working with my Accounting & Sales system requires little or no training to use it
6. There are privacy issues with my Accounting & Sales in relation to customer data

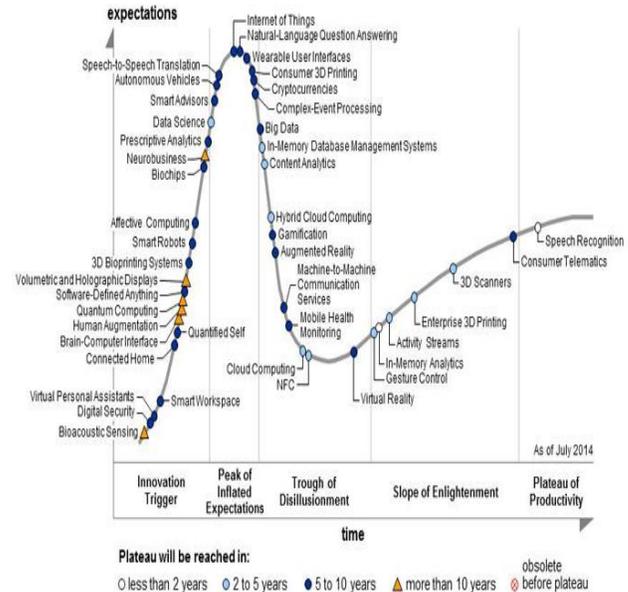


Fig 3 Hyper Cycle for IT Technologies 2014

7. There are privacy issues with my Accounting & Sales in relation to enterprise data
8. There are data security issues associated with my Accounting & Sales system
9. My Accounting & Sales system is missing some important functionalities
10. My enterprise lacks qualified staff to use an Accounting & Sales system
11. My enterprise has adequate IT facilities to deal with the requirements of my Accounting & Sales system
12. Frequency of technical support required by my Accounting & Sales exceeds my expectations
13. I am satisfied with the performance of my system

After carefully analyzing the survey responses of eighty companies, the averages of their responses are provided in the following table

B. Analysis of Survey Results

From the results of the survey it is evident that majority of sanitary ware industries in Jeddah and the surrounding areas do not use management and accounting systems.

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Many of the managers of these companies have admitted to the fact that if they were using MIS systems, their business would certainly perform better. In other words these companies can be classified as brick and mortar companies. Due to lack of usage of NIS systems, the sanitary ware house industry's performance is ordinary. MIs technology has matured and has crossed all stages as can be seen in Gartner Hyper Cycle of Technology for 2014. Therefore, there are no excuses for not using or implementing IT systems and tools to take their advantages.

VII. CONCLUSIONS

As we find from the analysis of our survey, Saudi Arabia needs to strengthen its small industry to qualify itself to the list of developed countries. Undoubtedly it has initiated and established a number programs and funds to help the young and new starters as well to support the existing businesses. The role of MIS in small industry cannot be ignored otherwise the industry will keep on falling back. Saudi Arabia has a good base of home grown IT companies as well as a strong presence of multinational companies. Therefore, lack of IT is not attributed towards the deficiencies for not using the MIS in small industry. The government on its part need to continuously support and bring in new initiatives to enrich and increase the small industries.

REFERENCES

- [1] Australia 2014, G20 members, [Online], Available: https://www.g20.org/about_g20/g20_members
- [2] The International Statistical Institute, Developing Countries, [Online], available: <http://www.isi-web.org/component/content/article/5-root/root/81-developing>, (15 November, 2015)
- [3] Quora (John Burgess), Is Saudi Arabia a developed country? [Online], available: <http://www.quora.com/Is-Saudi-Arabia-a-developed-country-Why>, (15 November, 2015)
- [4] Central Intelligence Agency, The World Fact Book, [Online], Available: <https://www.cia.gov/library/publications/the-world-factbook/geos/sa.html> (15 November, 2015).
- [5] Yamin Mohammad and Albugami Moteb A, An Architecture for Hajj Management, 15th IFIP WG 8.1 Proceedings International Conference on Informatics and Semiotics in Organisations, ICISO 2014, Shanghai, China, May 23-24, 2014, IFIP Advances in Information and Communication Technology, Vol. 426
- [6] Ayesha Sarfraz (Posted May 30, 2013), Arabian Gazette, The economics of Hajj, [Online], Available: <http://www.arabiangazette.com/economics-hajj-20130530/> (15 November, 2015)
- [7] Arabian Gazette (Posted by Ayesha Sarfraz / June 11, 2013), Saudi Arabia – new railways to cost \$45 billion, [Online], Available: <http://www.arabiangazette.com/saudi-arabia-new-railways-45-billion-20130611/> (15 November, 2015)
- [8] Asma Alsharif (august 20, 2011), Saudi Arabia starts major expansion of grand mosque in mecca, [online], available: <http://blogs.reuters.com/faithworld/2011/08/20/saudi-arabia-starts-major-expansion-of-grand-mosque-in-mecca/>
- [9] Ahmed Al Saleh , Exploring Strategies for Small and Medium Enterprises in Saudi Arabia, Strategies for SMEs in Saudi Arabia, [Online], Available: <http://www.ribm.mmu.ac.uk/symposium2012/extendedabstracts/AhmedAlSaleh.pdf>.
- [10] Oxford Business Group, Starting Small: : Given the large number of local SMEs, opening up financing and opportunities is key.[Online], Available: <http://www.oxfordbusinessgroup.com/analysis/starting-small-given-large-number-local-smes-opening-financing-and-opportunities-key> (15 November, 2015),
- [11] Okaz, Classification of businesses in 4 levels, [Online], Available: <http://www.okaz.com.sa/new/Issues/20120126/Con20120126472920.htm> (15 November, 2015)
- [12] European Commission, What is an SME?, [Online], Available: http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm (15 November, 2015).
- [13] The Centennial Fund, [Online], Available: <http://www.tcf.org.sa/Dimm/TCF/Profile/Pages/Default.aspx> (15 November, 2015).
- [14] Kafalah program to finance SMEs, [Online], Available: http://www.kafalah.gov.sa/Kafalah_2.5/index.php/2012-07-04-13-47-25/2012-07-04-13-47-58 (15 November, 2015).
- [15] Housing crisis looms in Saudi Arabia, [Online], Available: <http://www.meed.com/housing-crisis-looms-in-saudi-arabia/3104147.article> (15 November, 2015).
- [16] Start with relation between the oil revenue and the construction in Saudi Arabia, [Online], Available: <http://www.tandfonline.com/doi/pdf/10.1080/01446199700000006#.VBmiKvmSzNk> (15 November, 2015).
- [17] The Old House Journal, Sinks, [Online], Available: http://books.google.com.sa/books?id=3BYa3h-UGooC&q=bathroom+sink&hl=ar&source=gbs_word_cloud_r#v=snipet&q=thousands&f=false (15 November, 2015).
- [18] Wikipedia, Water Taps (Faucets), [Online], Available: [http://en.wikipedia.org/wiki/Tap_\(valve\)](http://en.wikipedia.org/wiki/Tap_(valve))
- [19] The Old House Journals, Half Baths & Tiny Toilets, [Online], Available: http://www.oldhousejournal.com/whats_restoration_worth/magazine/1438 (15 November, 2015).
- [20] Wikipedia, Washstand (washbasin with Pedestal), [Online], Available: <http://en.wikipedia.org/wiki/Washstand> (15 November, 2015).
- [21] Wikipedia, Flush Toilet (water Closet "WC"), [Online], Available: http://en.wikipedia.org/wiki/Flush_toilet (15 November, 2015).
- [22] Multi-function hot cold water kitchen, [Online], Available: https://www.saudisooq.com/en/c,131_166_624_625.home-and-garden,home-improvements,faucets,kitchen-faucets/p,7375,multi-function-hot-cold-water-kitchen-faucet,keysly.html (15 November, 2015).
- [23] Kitchen design, [Online], Available: <http://www.kitchen-design.org.uk/taps/> (15 November, 2015)
- [24] Satwat Al Benaa Trading Est., Official Website, about us, [Online], Available: http://www.sabest.com.sa/about_us (15 November, 2015).



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Website: www.ijetae.com (ISSN 2250-2459, ISO 9001:2008 Certified Journal, Volume 3, Issue 4, April 2013)

- [25] Connolly, T. and Begg, C. (2014). Database Systems: A Practical Approach to Design, Implementation, and Management. 6/e, Addison-Wesley
- [26] Chron, Importance of the Management Information System, [Online], available: <http://smallbusiness.chron.com/importance-management-information-system-5256.html> (15 November, 2015).
- [27] Wikipedia, List of countries by GDP (PPP) per capita, [Online], Available: http://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28PPP%29_per_capita (15 November, 2015).
- [28] R. Chinomona, The fostering role of information technology on SMEs' strategic purchasing, logistics integration and business performance, [Online], Available: <http://www.ajol.info/index.php/sabr/article/view/88948/78512> (15 November, 2015).

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