Technology as an Important Role in the Implementation of Saudi Arabia's Vision 2030

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Abstract

Information technology (IT) is rapidly growing influencing every sector of the economy. That has contributed to increased interest by various nations to boost IT connectivity within their borders and beyond to serve a number of national wellbeing. Many countries are focusing on the need to enhance their security as well as economic performance. In that regard, Saudi Arabia launched Vision 2030 in 2016with the hope of diversifying its economy, changing its oil reliant nature to a manufacturing economy. To achieve these goals, the application of IT cannot be underestimated. IT has been known to contribute greatly to creation of a good business environment be enhancing government relationship with firms especially by ensuring smooth operations for the latter. Again, it has allowed business-to-business exchanges, which will promote business growth through ideas and innovations. That will lead to increased production, employment opportunity and increased revenues for the Kingdom of Saudi Arabia, thus improving the country's GDP. As such, technology should be considered a necessity in the realization of Saudi's Vision 2030.

Keywords: Economy, GDP, Information technology, IT, Saudi Arabia, Vision 2030

Introduction

The global tide of economic competitiveness is highly gaining momentum with nations competing to position themselves as the best for business. As such, more emphasis is placed on the development of countries to achieve goals and advancements that will put them at the top in future. In that regard, the Kingdom of Saudi Arabia (KSA) has not been left behind and has launched the vision 2030 through which it seeks to enhance its business environment and economic performance ("Vision 2030", 2017). By applying the blueprint, Saudi Arabia hopes to consolidate its position as the leader of both the Islamic and Arab worlds by enhancing its political and economic networks both in the region as well as in the whole world. Secondly, the country aspires to become an investment powerhouse at the global scales, attracting venture capitalists from all regions of the world. Thirdly, Saudi Arabia plans to utilize its vast mineral worth to reduce its dependence on oil for its economy and apply a diversification approach. Fourthly, there are also plans to boost security, eliminate corruption, improve housing, enhance education, and create employment. As ambitious as it is, there are still high chances of achieving the above goals ("Vision 2030", 2017). However, the success of the implementation process of this blueprint is largely dependent on technology.

In the contemporary world, technology has become entangled with every part of life, both with natural beings as well as with legal persons, such as companies. For the Saudi's vision 2030, it encompasses both social and economic pillars, which will require massive investments in technology to ensure its accomplishment (Simsim, 2011). In fact, technology is a primary component on all the set goals of the country starting with trade connectivity, communication, security, education, and mining, etc. The higher the level of development in the country, the more will be its potential to achieve the outlined objectives in its vision 2030. For example, the Saudi Arabia's goal of becoming the center of both Islamic and Arabic cultures requires changes and infrastructural development that are reliant on modern technological growth. Therefore, the role of technology cannot be underestimated on the impact it would have on the implementation of the blueprint. The full realization of the Saudi Arabia's vision 2030 is largely based on technological development.

As such, it is expected that the application of the scientific as well as the high-tech knowledge will be viewed as a significant step towards the consolidation of the efforts.

Saudi Arabia's Economic Diversification in Accordance with the Vision 2030

Origin of the Vision

The development of the Saudi's vision 2030 is based on the enhancement of entrepreneurial spirit. The instigator of the blueprint is Mohammed bin Salman, Saudi's deputy crown prince. The project was launched in 2016, giving the implementers a tight schedule of about 15 years. A key aspect in the vision is to create partnerships between the government and the private sectors in the areas of economic development, such as mining, construction, education and health, as well as housing (Alshammari, 2014). The economic goal of the blueprint is listed as the second pillar, which is aimed at marketing the country as an investment center, thus making it a global powerhouse by 2030 in that aspect (Alfahad, 2012). Besides, the economic factor has also spilled over to the third pillar, which is meant to connect the country's trading routs to those of the world, thus making it the center of global business. The Kingdom of Saudi Arabia views its self as at the center of the world and thus hopes to connect three continents to its trading routes. The country is in close proximity to Europe, Africa, and Asia, with the benefit of having access to seaports on its western side, the Red Sea, and on its eastern side, on the Persian Gulf (Simsim, 2011). With the vast waterways and the regional influence the country has on other Islamic and Arabic countries, it is clear that such an initiative is highly plausible (Alfahad, 2012). Aside from that, locally the crown prince has been working to enhance and support the growth of small and medium term enterprises, aimed at increasing income for local households, as well as uplifting their lifestyles ("Vision 2030", 2017). The plan will also see increased investment by the government in such infrastructures as electricity and power generation diversification for sustainability. Other area scheduled for massive investment is the transportation sector. For economic growth to be realized in a country, it is prudent the communication and transportation be adequately developed. Modern business have their success linked to networking, which is mainly achievable through proper communication platforms, and realizable where transport is good and affordable (Mirza & Al-Abdulkareem, 2011). Saudi Arabia is a vast country in terms of size. As such, for local small businesses to thrive, there should be roads, railways, and air transportation that links cities within the country, as well as with those in the neighboring nations.

Implementation Process

The execution process of the vision 2030 was commenced in 2016, with all pillars being assigned to relevant government departments to champion for their development. Again, the concerned ministers were bestowed with the authority to establish monitoring techniques that will provide a continued evaluation of the program (Alshammari, 2014). Besides, the Council of Economic Development Affairs has thus created an interconnected and computerized system aimed at collecting feedback information from all the participants (Lily, 2013). This measure has significance in ensuring that everyone is on track and that the set objectives will become realizable within the set timeframe. Moreover, to attract the number of investors for the massive projects, the relevant authorities have also placed significant interests on online campaign and marketing strategies (Halligan, 2017). The following measure has included the use of websites, TV and radio advertisements, emails, YouTube, as well as other social media platforms. Although no trade deals could be reached over these platforms, at least they have become utilized to expose the vision more closely to the world, attracting the necessary attention require to achieve its objectives (Almaeena, 2016). Various sectors will require different investors, and diverse approaches to achieve their mini-visions, which are part of the bigger plant (Rashad, 2016). Therefore, the nature of presentation of the project to potential investors have always been considered as a critical step that can make or break a program. In that regard, there have also been customized models, for each of the set goals that are in line with the national objective. A new governance model has also been established with the view of translating the blueprint into several implementation programs, which will help provide directions and formula for the accomplishment of the set goals (Almaeena, 2016). Further, it has also instituted proper mechanisms for the coordination of various government departments and the private sector with the goal of ensuring constant communication and consultation to achieve these goals (Rashad, 2016). The above measures also guarantee the speedy implementation of the projects outlined under the plan.

The Influence of Information Technology (IT) on the Economy

In the contemporary world, the development of the IT sector has become a pioneer as well as a powerful catalyst in addressing the interests and needs of the developed, developing and least-developing nations. A conscious use of technology has been known to enhance the economic expansion for most countries. As such, the aspirations of the Saudi's Vision 2030 could be achieved in the application of IT to the various sectors of the economy. Some of the areas that could benefit from the application of technology include job creation, security, GDP growth, industry development, transformation of labor force, and business innovations, social security and healthcare, as well as cultural exchanges.
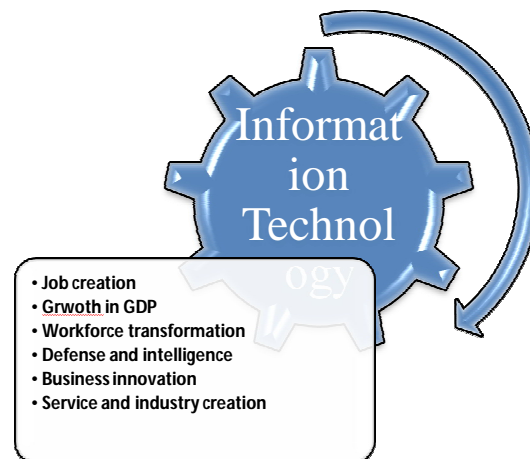
Job Creation

The growth and development of information technology has enhanced greater connectivity among the people. IT has created an easy way for businesses to access the markets far away from their locality, thus seeking to expand their productivity to meet these need (Elg, 2014). As this happens, opportunities for more jobs open for citizens, hence reducing unemployment. Besides, technology has also led to emergence of mobile phones and computer industries that have employed a lot of people (Mirza & Al-Abdulkareem, 2011). In the recent years, the development of computer application has become one of the best paying jobs. With more young people acquiring the computer skills, they get an opportunity to build their startup business, hence employing themselves as well as other people (Bilbao-Osorio, Dutta, & Lanvin, 2013). Again, the digitization of working environment has created more chances for businesses to interact with people who are not part of their business. This has assisted them in adopting different measures, such as outsourcing services, which means they offer job to a third party to help in completing a task. More so, in the recent times, online jobs have increased tremendously, where people are engaged in on a contract basis by their employers (Bilbao-Osorio, Dutta, & Lanvin, 2013). This fact means the chances of having more households make an income at the end of every month remains high.

In the Saudi's Vision 2030, the aim of the government is to create a suitable environment for the growth of small and medium enterprises. The hope is to use this as an avenue for increased job creation amongst the country's citizens. In this regard, IT is expected to play a critical role in ensuring that the government's objectives are achieved without a hitch. For example, it is always the case that most businesses have failed to pick up due to the hurdles encountered during registration and other government related interactions such as tax remittances. Therefore, the application of information technology is seen as a significant step in addressing this problem (Elg, 2014). Firstly, it can do that by rolling out government services online. The following measure will reduce the amount of time and money taken to register and run a business in the Kingdom of Saudi Arabia. Secondly, IT helps in the storage of critical business data on tax returns, hence avoiding any disputes with the government (Mirza & Al-Abdulkareem, 2011). As such, the businesses have an opportunity for a quick registration and quick starting of their activities, which will lead to increased employment by the startups.

Growth in Gross Domestic Product (GDP)

At the moment, the role of IT in the expansion of GDP cannot be estimated. The growth of the IT sector has gained momentum and penetrates virtually to all the sectors of the economy. For example, information technology has provided a reliable, fast and safe means for business transactions. At the moment, people are able to buy and sell products online with a quick adoption of the cash free society (Lily, 2013). This possibility has made great strides in the recording of all transactions, hence giving the government to monitor financial transactions, and collect taxes from them. As such, it has made tax evasion a difficult thing for most businesses and increased government revenues, hence increased resources that can be used for infrastructural development. Besides, the growth of the IT sector has come with increased job opportunities and industrial expansion ("Saudi ICT Investment", 2013). This measure has the advantages of increasing government revenues even further, while reducing the number of people living below the poverty level.

Moreover, the expansion and growth of the industry can increase the per capita income for every household and thus raised the standard of living within the country. Further, IT has enhanced information management and enhanced communication between the private sector and the government, which has had notable benefits to the economy of the country. Previously, it was quite difficult to estimate the development of a country and the sectors that performed well due to poor information collection and sharing ("Saudi ICT Investment", 2013). However, with the digitization of the government services, it could be easy for the government to evaluate the country's economic performances and recognize the areas that needed improvement. At present, Saudi's economy is largely reliant on oil, which accounts for about 87% of budgetary revenues, 90% of earnings from exports, and 42% of the GDP. Since the deregulation of the Information and Computer Technology (ICT) sector in 2002, the PC per capita has exploded and continues growing to unimaginable levels. By 2012, the annual growth of the sector had been by 13.9%, with 2013 registering a 14% increase (International Monetary Fund, 2015). From the above statistics, it is evident that the country's ICT sector still has the potential to grow, which means the country could realize its dream of diversifying its economy to reflect a higher income from other sectors by 2030. Besides, it is expected that the increased growth in the sector will give rise to more IT companies, which will lead to increased revenues. Globally, the internet industry has been known to account for close to 70% of the world's GDP. Therefore, by positioning itself as a leader in this sector, Saudi will have an opportunity to generate resources from the industry (International Monetary Fund, 2015). Considering that the Kingdom of Saudi Arabia is one of the countries that could impact global economy due to its oil trade at the moment. As such, it would be easier for Saudi Arabia to use the already existing trade networks to enhance a platform through which it can be used to develop ICT both within the country, as well as regionally and eventually internationally (Communication and Information Technology Commission, 2015).

Service and Industry Creation

The service industry is one of the greatest beneficially of the IT sector development. In the recent times, the activities that took much time to complete have seen their time reduced to just some few minutes in their completion (Giraldo, 2010). At other times, consumers do not even have to visit the services providers but will have all their requests made while at the comfort of their homes. Some of the critical areas where the use of IT has improved service delivery include trade data sharing, education, banking, research and marketing, as well as advertisement (Callen, Cherif, Hasanov, Hegazy, & Khandelwal, 2014). Other sectors include payment of bills, product purchasing, and government services. Previously, there were huge lines in banking halls with people waiting for long hours before they could be served. Although the situation has not fully changed today, it has at least improved to a greater extend. For example, the digitized system has eliminated the time spent during the filling of paperwork by clients, something that led to the delays in the processing of their requests. Besides, the IT revolution has enabled banks to store and retrieve information at ease, as well as secure information, thereby ensuring clients' confidentiality (Giraldo, 2010). Further, the customers are at liberty to access their bank data without having to dealing with the employees of the bank. This measure gives independence to the clients and allows them to monitor their bank balances. Furthermore, the banks have been able to penetrate the markets previously thought as too secluded (Vijayasri, 2013). At the moment, mobile money transfer technology is experiencing high growth. For the country to realize its Vision 2030, it is necessary to adopt measures that would ensure proper management of financial resources through the use of various techniques to bank their population (Callen, Cherif, Hasanov, Hegazy, & Khandelwal, 2014). This will be significant as the world moves towards a cashless society, hence eliminating the risks that are associated with carrying paper money.

Another area where IT is expected to propel growth is in the transportation industry. Modern transportation techniques are quite different from the traditional ones due to the smart technologies. For example, buying tickets for trains and air-travel has become easier, hence saving time for both the companies and the travelers. Besides, communication from various operators have also increased, thus ensuring efficiency and security during operations (Vijayasri, 2013). As Saudi Arabia works towards realizing its vision 2030, the investments in infrastructure will be vital. Therefore, it will necessitate proper planning especially in the design and implementation process (Gust & Marquez, 2004). The abilities of information technology in the achievement of those engineering objectives cannot thus be underestimated. Another core benefit of IT in achieving the Vision 2030 will be advertisements (Global Research, 2016). The realization of the Saudi blueprint will require investors' confidence. To achieve this objective, it will be critical that a vibrant campaign is done to get the message to the world. The use of information technology will be a better way to ensure that such an objective has been well realized.

Besides, the investments in information technology of the country will also help other industries, such as oil and gas, which may seemingly appear independent. Such an assistance would come through faster passage of necessary information as well as enhanced business-to-business exchanges. Moreover, a business with subsidiaries in other parts of the world would be in a position to communicate effectively with them, thus monitoring their operations and providing guidance where necessary (Gust & Marquez, 2004). Two other beneficiaries of the enhanced IT development is the telecommunication industry and the media sector. Information is key to any form of development in a country (Ahmad, 2014). As such, the implementation of information technology will serve this purpose, thus leading to tremendous growth of the two industries. Such telecoms firms as Saudi Telecom Company (STC) and Integrated Telecom Company (ITC) have enhanced services in mobile and landline connectivity, as well as in interconnections, satellite, and broadband. The above novelties have increased communication speed, the ability by other businesses to conduct their operations (Communication and Information Technology Commission, 2015). Besides, Saudi Arabia has plans to open up assembly factories for communication industries, which will highly increase job opportunities and improve on the balance of trade, thus positively impacting its GDP (Ahmad, 2014). Moreover, the country has numerous mineral wealth other than oil and gas, which could be used in the manufacturing communication devices (Global Research, 2016). As such, that would also lead to increased growth of the mining industry.

Workforce Transformation

By 2030, most work-related activities in various industries will be highly dependent on technology. As such, it will be critical that the country's labor force acquire necessary skills to perform effectively while at their job stations (World Economic Forum, 2017). That will be necessary to ensure faster and accurate delivery of services as well as increased productivity. Besides, technology will also help eliminate challenges, such as data omissions and misinterpretation, thus leading to poor performance of the firms in the country. Moreover, IT has contributed to the emergence of stronger networks within the workforce, as well as enhances communication among middle- and lower-level workers with the top level management, as well as among themselves (World Economic Forum, 2017).

Business Innovations

The growth of the IT sector has increased the number of business innovations occurring every year. For example, it is estimated that in the Organization for Economic Co-operation and Development (OECD) countries close to 95% of business being launched has presence online and has indicated recognizable use of technology. Since, the invention of information technology, new applications keep occurring every day simplifying the manner in which business and production has been handled for years (Mendelson, 2015). This tendency is clearly visible in the marketing industry, which has numerous changes with the emergence of social media (Lily, 2013). As such, the traditional way of marketing is slowly becoming eliminated. New forms of information and news passages have also been realized, threatening the management and influence of news broadcasts. However, everything has changed with the modern times seeing the increased numbers of freelance reporters, due to the technology (Mendelson, 2015). Moreover, innovations in the IT sector create an opportunity for more discovery. For example, the development of mobile phones has led to increased inventions in the applications, such as money transfer, video messaging, and group chats apps. Another example is the creation of the Internet, which has seen various communication software discovered to support it (Baden-Fuller & Haefliger, 2013).

As the Kingdom of Saudi Arabia seeks to become a global center for business by 2030, it will thus be required to increase its research and development particularly in the information technology industry.

Social and Cultural Exchanges

The Saudi's Vision 2030 envisages becoming a leader of both the Islamic and Arabic worlds. This goal means it seeks to enhance cultural and social relationships with Muslim and Arab states. Doing so will require establishing a strong people-to-people exchanges to improve on the unity of the regional states and the different religious factions. As such, it will require the country to establish a unique infrastructure that will support such an aspiration. For example, the country will need to establish interconnected and cheap communication zone for its target citizens (Lily, 2013). It should also adopt communication apps, such as the social media, which would do well in bringing the much wanted unity amongst the population. The citizens of different nations can interact and form friendly relationships through the proper use of information technology.

Besides, other infrastructures that will need modern technology to achieve the objective of unity amongst the Muslim and Arabic nations will include roads, air, water and railway transports (Callen, Cherif, Hasanov, Hegazy, & Khandelwal, 2014). This step will not only allow people to travel and meet in each other's country, but will also help increase trading activities among the citizens of these nations. The construction of these infrastructures will need modern technology for it to be effective and efficient enough to meet the planned goals. It will thus necessitate the Saudi government to heavily invest in modern equipment to provide reliable services and ensure the success of the Vision 2030, particularly in bringing citizens from different countries together for a common purpose (Baden-Fuller & Haefliger, 2013). Besides, the Kingdom of Saudi Arabia wants not only to unite these nations but also to become their leader, which makes it more important for the nation to lead in the investment in information and technology significantly.

Social Security and Healthcare

The future of any nation is the well-being of its citizens. As such, proper investment in the social and health sectors would guarantee a strong society that can work efficiently to provide all required services to its citizens (Abanmy, Al-quait, Alami, Al-Juhani, and Al-Aqeel, 2012). Therefore, for the Saudi Vision 2030 to be realized, there is a need for investment in the health sector particularly through information technology. One of the benefits of information technology in health sector is the use of electronic health records (EHR) (Bowman, 2013). The technique reduces the use of paperwork in hospitals, hence reducing the time taken to look for patients' records. The EHR system ensures that patient's information is available to all the parties involved, such as the doctors, nurses, and patients. As such, care providers and medical practitioners can assess the history of their patient before any treatment (Bowman, 2013). There is also close and easy interaction between doctors and their patients, giving them an opportunity to ask questions where they have not been contented with the information sharing. Therefore, IT has significance for the Saudi Vision 2030, which is meant to create a health and danger free society (Abanmy, Al-quait, Alami, Al-Juhani, and Al-Aqeel, 2012). On the other hand, on social security, information technology will guarantee protection and proper maintenance of citizens to ensure that those who qualify for government special services, such as the elderly, get them without a hitch. The above measures will also be intended to ensure that proper records are provided for former workers so that they will be given their full retirement benefits.

Defense and Intelligence

The Middle East region has been volatile for years and there is no clear sign of real peace by 2030. Therefore, the drafters of the Vision 2030 supposed that when they were developing the blueprint, they considered the need for having the security concerns of the country as a priority (Baden-Fuller & Haefliger, 2013). Thus, there are several ways through which the use of information technology could help address this challenge. First, secure communication is significant in ensuring that the country protects both its political and business interests. An attack on either of the two pillars would have a negative impact on the economy of the country (Ogedebe & Jacob, 2012). The Saudi government should thus make investment into the measures meant to mitigate cyber-warfare threat, something that is increasingly becoming a method of attacks between different nations. The realization of the Vision 2030 is hugely dependent on political, religious, and economic influence of the Middle East region where the country still has some foes who will seek to ruin it.

As such, investment into the secure IT systems for both government installations as well as those belonging to the private sector in the country is very important (Tohidi, 2011). In addition, military and security communications should always remain secret to avoid revealing critical information to the enemy, who may use it to attack the country's interests (Ogedebe & Jacob, 2012). On the other hand, information technology will allow the country to gather intelligence data from various sectors and quarters, thus using it for responses as well as mitigation of the possible threat (Tohidi, 2011).

Significance of Technology in the Realization of the Economic Goals (SWOT Analysis)

Strengths

The application of information technology in Saudi Arabia has developed due to the dynamism and maturity of the sector. Some of the most notable strengths for ICT growth in Saudi Arabia is the emerging tech savvy generation in the country. This factor has largely ensured that the rolling out of the system as well as its acceptance will remain high. Besides, most citizens have express interest in learning more about the operation of digitized programs (Alshuwaikhat & Mohammed, 2017). Secondly, the implementation of ICT has support from the top level leadership in the country. It is evident that the implementation of the Vision 2030 is under the watch of the deputy crown prince, who also realizes the importance of engaging information technology in the achievement of the objective set in the blueprint. Political support is a significant step in the implementation of national programs (Saisana & Philippas, 2012).

Otherwise, there are higher chances that such a project could collapse or fail to realize its full potential. Thirdly, Saudi Arabia enjoys friendly relationships with the Western World countries, which have advanced technology, which would be required by the realization of the Vision 2030 (Alshuwaikhat & Mohammed, 2017). As such, there are high expectations that the friendly nations would sell the cutting-edge information technology to the Kingdom of Saudi Arabia or at least assist it in the development of its own technologies.

Weaknesses

The Saudi Arabia's political environment is quite unpredictable on the application of such technology, considering the leadership fears of extremist uprising that has happened in the neighboring states. The following fact could lead to the blockage of applications such as those in the social medial, hence limiting information sharing capabilities that are necessary in the economic and technological development of the country (Huang, Wang, Wu, Lou, Miao, & Xu, 2012). Thirdly, there is mistrust amongst nations in the application of technology, especially in reference to the matters relating to economic and political intelligence collection. Therefore, with the countries Vision 2030 being to become a leader in the Arabic and Islamic worlds, the possibility of resistance from the neighboring countries is still high. In this regard, no nation will freely allow its communications to be interfered with (Alshuwaikhat & Mohammed, 2017). Besides, the increasing competition among the Gulf States in positioning themselves as regional leaders will derail the country's vision of becoming a leader as the neighboring nations use similar technologies to protect their data. Lastly, Saudi Arabia has not reached a position to create and rely on its home made information technologies, and as such will have to depend on other countries (Saisana & Philippas, 2012). This fact exposes its program to getting accessed by the operatives from other nations.

Opportunity

Several underlying prospects exist in the use of information technology to supporting the objectives of the nation's vision 2030. Firstly, with IT, there is potential for a vibrant economic growth for Saudi Arabia. Technology is a key factor in the growth of modern industries due to its ability collect, analyze, and store information in a manner that it could easily get retrieved and applied at ease. Besides, it has also become necessary in data exchange among various business players, thus ensuring the sharing of skills, which is necessary in transfer of the abilities from one group to another. Secondly, the application of information technology presents an opportunity for the government and private sector to interact and corroborate more closely on development programs (Huang, Wang, Wu, Lou, Miao, & Xu, 2012). As such, government services become easily accessible, hence encouraging more investors to put their money in various sectors of the economy. Thirdly, the enhanced technology will be effective in connecting the Saudi market to the rest of the world, thus opening up more opportunities for the country to market its products.

Fourthly, the use of IT will also help increase the rate of startups growth, as well as innovations (Jayalakshmi & Pramod, 2013). Since information technology has not yet fully developed, there is a need for more enhancement and development every day. As such, as businesses and individuals seek to address the challenges they face at the moment for applying technology, they will engage more in research activities, hence boosting the rate of inventions. Besides, IT solutions in business management are not quite expensive compared to the traditional methods applied in such activities as tax remittances and business registration. Therefore, it is likely to encourage more startups to occur in the country, thus boosting the GDP, as well as reducing the unemployment rate.

Threats

Information technology application in the implementation of the Saudi's Vision 2030 has also been faced with various threats that could derail the progress or successful execution of the program. Firstly, IT-related crimes are on the rise globally. As such, the implementation of the program should be done cautiously, otherwise it could be attacked by the country's enemies to destroy its economy. Besides, the threat of information theft has become a reality, and thus most companies will not be willing to take such a threat by exposing themselves.

Secondly, with the competing interests on the government side, little resources are likely to be allocated for information technology. As such, it may become difficult to ensure its safety and maintenance for the country.
Thirdly, people generally have vast expectations regarding the performance of information technology in delivering the expected results. As such, they fail to clearly recognize its weaknesses, which then lead to unforeseen failures, such as data loss. Fourthly, as technology can help enhance services grows, the risks posed by hackers and other cyber attackers continue to increase. Therefore, there is no single time that the application of information technology will be viewed as safe without the risks of being attacked. Fifthly, IT requires constant research and development, which can require raising the cost of its maintenance.

As such, it becomes difficult to keep up with the threat with the intention of enhancing security, the governments and businesses should reduce funding, which in some ways will curtail the growth and development of the IT industry and impact the implementation of the blueprint (Ali, Al-Sulaihi, and Al-Gahtani, 2013). Last but not least, the possibility of job losses grows with the rising use of technology. Although on the one hand, IT has in several ways led to the creation of new job opportunities, on the other hand, it has also threatened others, which may contribute to some resistance by employees (Ali, Al-Sulaihi, and Al-Gahtani, 2013). People hate losing their jobs and are unwilling to let go of their source of income without fighting back (Jayalakshmi & Pramod, 2013). As such, they are likely to sabotage the implementation process with the hope of retaining their positions and control. Such factors could then contribute to system failure, and hence the inability to achieve its objectives.

The Role of Technology in the Realization of the Saudi's Vision 2030

The application of information technology to realize the Saudi's Vision 2030 will have several important aspects in its achievement. In this regard, technology will be applied in improving the coordination and synchronization of all government's activities. It is significant to note that implementation of the Vision 2030 is at the heart of the government, and as such, all participants and activities should be connected to it. Information technology will be an appropriate way of ensuring that such objectives are easily achieved. IT will also be necessary in ensuring faster implementation of activities in the blueprint. Most activities that are scheduled for the implementation by 2030 could run out of time if a speedy execution process is not applied (Ali, Al-Sulaihi, and Al-Gahtani, 2013). Therefore, the use of IT is meant to increase the pace through which different changes will get implemented without a hitch. These measures will guarantee timely achievements of the vision as planned by the government. Further, information technology will be expected to increase business interactions through various information sharing strategies, which is an important step in the realization of growth in investments and trade. As the country seeks to diversify the sources of its revenues, supporting several business ideas will be critical (Al-Saggaf & Simmons, 2015). As such, the use of IT technology will assist in sharing and communication of outside firms with those residing in Saudi Arabia, hence leading to the transfer of necessary knowledge in order to propel business growth (Ali, Al-Sulaihi & Al-Gahtani, 2013). Moreover, it will also be significant in enhancing the relationship between the government and the investors. These steps will ensure quick processing of business permits and other government documents, thus reducing time taken to set up a firm in the country (Al-Saggaf & Simmons, 2015). This will be in line with the government's intention to see increased investments, which could result in higher revenues and increased job creation, as well as rising and diversified GDP growth.

Furthermore, IT usage can contribute to the growth of other income generating activities, especially for small and medium enterprises. The field of information and communication technology is experiencing higher and faster development than other fields globally. The following fact has been precipitated by its ability to fit in any field, providing simpler ways of conducting their daily activities. In fact, the emergence of simpler communication and advertisement technologies, money transfer systems, business registration, and the provision of healthcare among others are just examples that indicate the areas in which information technology could become applicable. The development of software used in this case does not always emanate from big firms but also from smaller startups, which have the capacity to grow when their innovations are supported by the government. This will ensure growth in employment as well as revenues for the country. Additionally, the aim of the Saudi's Vision 2030 is to propel social integration among the Muslim and Arabic countries, hence building close relationships among the citizens of these nations. The expectations are to use the friendship to protect common business and political interests, especially within the Middle East region where the situation in a number of countries has been volatile (Al-Saggaf & Simmons, 2015). As such, the application of information technology will have relevance in the provision of simpler ways through which individuals in different countries within the region can communicate at ease (Jayalakshmi & Pramod, 2013). This measure will foster good relationships amongst the citizens of these nations, which would result in much needed peace for the Vision 2030 to be achieved. Besides, this will also act as a way of increasing marketing for business and investment opportunities available in the country.

Recommendations

The implementation of the Saudi's Vision 2030 is an ambitious project that will need concerted efforts if it is to be realized. As such, as the use of information technology allows achieving the objectives of this blueprint, IT should always be at the forefront. In this regard, it is important that the executors of the vision identify specific areas in which IT technology could help them meet their goals. In order to achieve the set objectives, there should be massive investments in the infrastructures that will improve the use of information technology. Such developments include the connection to global fiber optic cables, which will increase the speed at which services are offered. However, precaution should also be taken considering the risks of cyber-attacks that are likely to occur. It is vital not only to protect information as well as to prevent document loss. The government should also create information storage facilities, as well as enhance training for its employees on the use of the IT system. To ensure consistency in government performances, a well-laid out plan is significant on the implementation process. There should also be a backup plan to ensure safety of information. IT solutions are at times faced with data loss, which could be catastrophic for the country as well as the businesses that apply them. Such threats would have a negative impact on the economy, which would be against the stated objectives in the Vision 2030.

Conclusion

Technology has both advantages as well as disadvantages in its relationship with economic interest of a country. In the case of the Kingdom of Saudi Arabia's Vision 2030, the use of technology and in particular IT will be paramount to achieving its stated objectives. As such, it will be critical that emphasis is place on IT use. For example, the application of IT has been seen to quicken service provision by both the private sector as well as the government. It has also contributed to increased job creation, innovations, social integration, and security, all of which have significance in boosting the country's economy. In addition, it has also been known to encourage growth of small and medium enterprises, which have acted well in creating job places. However, it has also been affected by possible threats and difficulties that could derail the process of implementation of the Vision 2030. One of such difficulties is cyber-attacks. In the recent past, there have been numerous occasions in which governments and businesses globally have been attacked by hackers, leading to the loss of important information. In case such incidences were to happen in reference to Saudi Arabia's blueprint implementation, the country could become exposed to its competitors or have their projects stagnated or collapsed. Moreover, if care were not taken, the use of IT could as well result in the loss of employment. However, the benefits of IT have far much outweighed its disadvantages in this case.

References

Abanmy, N.O., Al-quait, N.A., Alami, A.H., Al-Juhani, M.H., and Al-Aqeel, S. (2012). The utilization of Arabic online drug information among adults in Saudi Arabia. Saudi Pharmaceutical Journal, 20(4), 317-321.

Ahmad, T. (2014). Current growth of Information and communication technology in Saudi Arabia. Research Gate, 21(6), 216-223.

Alfahad, F. N. (2012). Effectiveness of Using Information Technology in Higher Education in Saudi Arabia. Procedia - Social and Behavioral Sciences, 46, 1268-1278.

Ali, H.M., Al-Sulaihi, I.A., and Al-Gahtani, K.S. (2013). Indicators for measuring performance of building construction companies in Kingdom of Saudi Arabia. Journal of King Saud University - Engineering Sciences, 25(2), 125-134.

Almaeena, K. (2016). Saudi Vision 2030 requires comprehensive implementation. Saudi Gazettee. Retrieved from http://saudigazette.com.sa/opinion/saudi-vision-2030-requires-comprehensive-implementation/

Al-Saggaf, Y., & Simmons, P. (2015). Social media in Saudi Arabia: Exploring its use during two natural disasters. Technological Forecasting and Social Change, 95, 3-15.

Alshammari, N. (2014). The Use of Technology in Education to Improve Student's Reading Skills in Elementary Schools, Saudi Arabia. International Journal of Business and Social Science, 5(6), 69-71.

Alshuwaikhat, H.M., & Mohammed, I. (2017). Sustainability Matters in National Development Visions—Evidence from Saudi Arabia's Vision for 2030.Sustainability, 9(3), 408.

Baden-Fuller, C., & Haefliger, S. (2013). Business models and technological innovation. Long Range Planning, 46(6), 419-426.

Bilbao-Osorio, B., Dutta, S., & Lanvin, B. (2013). The Global Information Technology Report 2013. Geneva: World Economic Forum and INSEAD.

Bowman, S. (2013). Impact of Electronic Health Record Systems on Information Integrity: Quality and Safety Implications. Perspectives in Health Information Management, 101c, 1-19.

Callen, M.T., Cherif, R., Hasanov, F., Hegazy, M.A., & Khandelwal, P. (2014). AnEconomic Diversification in the GCC: Past, Present, and Future. Washington, DC: International Monetary Fund.

Communication and Information Technology Commission. (2015). ICT Report: ICT Workforce in the Kingdon of Saudi Arabia. Retrieved from
http://www.citc.gov.sa/en/reportsandstudies/Reports/Documents/ICTWorkforce_en.pdf

Elg, L. (2014). Innovations and new technology. Stockholm, Sweden: VINNOVA.

Giraldo, T. R. (2010). Understanding the Role of Technology in Service Innovation: A Theoretical Overview. Stockholm, Sweden: KTH Industrial Engineering and Management.

Global Research. (2016). Saudi Vision 2030. Retrieved from http://argaamplus.s3.amazonaws.com/417177d0-c22b-432b-9602-417ec7d45050.pdf

Gust, C., & J. Marquez. (2004). International comparisons of productivity growth: The role of information technology and regulatory practices. Labour Economics, 11, 33-58.

Halligan, N. (2017). Legislating Saudi Arabia's Vision 2030 transformation. Retrieved from
http://www.arabianbusiness.com/legislating-saudi-arabia-s-vision-2030-transformation-661110.html

Huang, L., Wang, K., Wu, F., Lou, Y., Miao, H., and Xu, Y. (2012). SWOT Analysis of Information Technology Industry in Beijing, China Using Patent Data. In B. Margante. et al. (Eds), Computational Science and Its Applications- ICCSA 2012. Lecture Note in Computer Science, 7333. Berlin, Germany: Springer.

International Monetary Fund. (2015). Saudi Arabia. Retrieved from
https://www.imf.org/external/pubs/ft/scr/2015/cr15286.pdf

Jayalakshmi, B., & Pramod, V.R. (2013). Hybrid SWOT-AHP Analysisof ICT Enabled Control System in the Process Industry - A Case Study. International Journal of Computer Applications, 72(4), 13-18.

Vision 2030.(2017). Retrieved from http://vision2030.gov.sa/en

Lily, A. E. (2013). The social shaping of educational technologies in Saudi Arabia: An examination of how the social fabric shapes the construction and use of technologies. Technology in Society, 35(3), 203-222.

Mendelson, H. (2015). Business Models, Information Technology, and the Company of the Future. MIT Technology Review. Retrieved from https://www.technologyreview.com/s/542951/business-models-information-technology-and-the-company-of-the-future/

Mirza, A.A., & Al-Abdulkareem, M. (2011). Models of e-learning adopted in the Middle East. Applied Computing and Informatics, 9(2), 83-93.

Ogedebe, P.M., & Jacob, P.B. (2012). The role of information technology in combating security challenges in Nigeria. Academic Research International, 2(1), 124-129.

Rashad, M. (2016). Saudis await Prince's vision of future with hope and concern. Reuters. Retrieved from http://www.reuters.com/article/us-saudi-plan-idUSKCN0XL0B2

Saisana, M., & Philippas, D. (2012). Sustainable Society Index (SSI): Taking societies' pulse along social, environmental and economic issues. Environmental Impact Assessment, 94-106. Retrieved from http://publications.jrc.ec.europa.eu/repository/bitstream/JRC76108/lbna25578enn.pdf

Saudi ICT investment exceeds SR 135 bn. (2013). Arab News. Retrieved from http://www.arabnews.com/news/456095

Simsim, M. T. (2011). Internet usage and user preferences in Saudi Arabia. Journal of King Saud University - Engineering Sciences, 23, 101-107.

Tohidi, H. (2011). The role of risk management in IT systems of organizations. Procedia Computer Science Journal, 3, 881-887.

Vijayasri, G. (2013). The role of information technology (IT) industry in India.International Monthly Refereed Journal of Research in Mnanagement & Technology,2, 54-64. Retrieved from https://www.abhinavjournal.com/images/Management_&_Technology/Aug13/7.pdf

World Economic Forum. (2017). Five ways technology can help the economy. Retrieved from https://www.weforum.org/agenda/2013/04/five-ways-technology-can-help-the-economy/