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RESEARCH PAPER ON

"The Impact of The Digital Transformation Led by Vision 2030 On the Saudi Economy"

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Abstract

In the midst of the ever-changing socioeconomic environment, Saudi Arabia's 2030 vision that was conceptualized in 2016 continues to shape the modernization of the country's economic prosperity and the social fabric of Saudi's society (Surf & Mostafa, 2017). Following the 2003 to 2013 oil boom that led to the vast growth in the Saudi economy almost by double in size, that led to over 1.7 million Jobs created in Saudi with 75% adjusted inflation growth and over $450 billion invested on education, Infrastructure and health (Abdelfattah, 2017). Based on the context of 2030 vision based on economic expansion and improving the living standards and quality of Saudi Arabians, the authorities developed a growth model that was dependent on public spending and oil exports. Despite such ambitious development plans and modernization of Saudi Arabia, there have been significant concerns on the depletion of its oil for exports that it depends on for the realization of it 2030 vision (Al-Zahrani, 2015). Thus, there have been significant suggestions on the impact of digital transformation the vision 2030 would have in the Saudi Arabia's Economy.

As globalization continues to shape the socioeconomic and the labor environment in Saudi, there are some factors that the current study aims to articulated and access their future implications on Saudi's Economy. There have concerns on the future of Saudi's economy with significant concerns being raised to possible depletion of Oil as its primary export production and means of foreign earnings (Abdelfattah, 2017). Thus, investment in infrastructure and technology such as digital transformation are the critical pillars of vision 2030. The paper aims to articulate the impact of the digital transformation led by vision 2030 on the Saudi economy and access the future orientation of such digital transformation in achieving the 2030 vision objectives.

Keyword: Digital Transformation, Saudi's Vision 2030, and Saudi's Economy

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Introduction

Over the years, Saudi's economy has experienced tremendous growth especially during the oil boom from 2003 to 2013 that saw its economy move up from being the 27th largest economy in the world to 19th in 2014 (Surf & Mostafa, 2017). Saudi is the largest oil exporter that drives over 90% of the government's revenue. Arguably, the 2003 sharp oil prices increase from $30 to $110 per barrel in 2013 led to a doubling economic growth in just a decade. During the 2008 financial crisis, Saudi did not experience such economic shocks as it eliminated its national debt and increased its assets reserves to $732 billion which is 100% of its 2014 GDP (Winkelhake, 2017).

According to Devarajan et al., (2016), there has been a decrease of the price of oil per barrel from $110 to $45 from the period that proceeded 2014 which continues to threaten Saudi's realization of the 2030 vision. Similarly, the quantity of oil for export continues to decrease thus putting the kingdom of Saudi Arabia (KSA) in a compromising situation in the future of its economy. Therefore, the conceptualization of vision 2030 is critical in the economic development of the kingdom. With the significant investment of the revenue from oil exports in essential sectors such as infrastructure, transport, and technology, the kingdom hopes to enhance economic sustainability and shift from depending only on oil (Wald & Ansdell, 2018). This paper aims to effectively access the vision 2030 and its impact on Saudi's economy within the domains of the current digital transformation.

Saudi's Digital Transformation Waves

In any success story, there is a strong formulation of a visions which are based on strong pillars that are well spelled out and clearly defined. Saudi's future is ambitious and achievable within its timelines that is expected to enhance economic sustainability and growth. Saudi's Vision 2030 is based on critical pillars including technology development, education, health, investment and infrastructures (Wald & Ansdell, 2018). Based on such an ambitious vision, digitization as the process of modernization of the kingdom has gone through three fundamental waves that are projected to impact the KSA economy in the future. In the verge of making Saudi to be competitive in the world, it is crucial to strengthen digital transformations that will ensure that the kingdom is not left behind in the continuous digital era development (Ellyatt, 2018). Thus, in each of these digital waves, there has been social and economic impacts in the kingdom of Saudi Arabia that have continuously contributed to the current development and economic performance observed in Saudi.

First Digital Wave

The first digital wave is described using computing, mobile technologies, broadband and networks that enhanced communications and efficient information sharing within the country. These techniques were vital in ensuring the growth of the traditional oil industry through the scaling up its operations that further impacted the growth of the economy. Additionally, there was an increase in demand of its tradition products to outside markets as such technologies

enhanced communication in Saudi (Wald & Ansdell, 2018). The first wave contributed effectively to improving collaborative business in the economy of Saudi with significant growth in the telecommunication sector in the region that further contributed to the employment creation in Saudi between 2003 and 2013. Arguably, over 1.7 million jobs were created which further enhanced the labor market in Saudi causing the kingdom opening up its border to foreigner workers (Surf & Mostafa, 2017).

Based on this first wave, the process of globalization further enhanced economic growth in the Saudi kingdom based on a number of factors. The supply of labor and international trade was augmented due to the accessibility of the kingdom and the technology advancement. Other sectors that benefited from the wave include the health care system, financial services, and education that were impacted positively in Saudi's social and economic aspects (Surf & Mostafa, 2017).

Second Digital Wave

The second digital wave was marked with a number of developments that had critical social and economic impacts in the Kingdom of Saudi Arabia. This wave was marked by the introduction of electronic commerce, internet accessibility and collaborative business described as a digital economy (Winkelhake, 2017). Within the context of the second wave, there was a lot that had developed to enhance the economic sustainability and future orientation of the Kingdom in the current competitive digital world (Wald & Ansdell, 2018). For instance, the enhancement of the digital commerce business transactions in Saudi attracted a number of international corporations investors into Saudi given the potential that the kingdom depicted. The economic sectors just like international trade enjoyed a positive up-scale due to the digital commerce practiced in the region (Surf & Mostafa, 2017). Due to this digital shift, international businesses like Uber and Airbnb established their enterprises in Saudi that further opened up the kingdom into the global market.

Within the social context, the second wave of technology enhanced information sharing and communication with the outside world through the use of the internet. The technology further enhanced the development of the education system and distance learning that improved further on skills development and the development of better social structures in the kingdom (Surf & Mostafa, 2017). Import and export business in the kingdom increased due to the channels of accessibility and transacting through platforms that were as a result of technology transformation in the KSA. Further, the banking industry grew significantly that ensued a significant boost in private investment within the kingdom as more people were able to access credit facilities (Winkelhake, 2017).

Current Digital Wave

The current digitization in Saudi has critical implications on the economic productivity. Several significant impacts can be attributed to the role that the digital transformations have in the current socioeconomic environment in the contemporary world. These digital transformations have enhanced implementation of labor market policies in the kingdom thus improving the working condition of employees in Saudi for better economic growth (Winkelhake, 2017). There has been further development in the geographic mobility of business that has been facilitated by telecommunication services that have been articulated within the digitization process. Through these digital platforms, there has been a critical increase in exchange programs within both

international and local universities which has led to the enhancement of skills in the labor market in the Kingdom (Abdelfattah, 2017).

Background of the Study

Due to the 2003 to 2013 oil boom, the Saudi demographics changed drastically with a double growth of the economy (Abdelfattah, 2017). Based on the kingdom ruler's vast knowledge on Saudi's economy and the growing concerns on the oil depletion and dynamic prices changes, the authority conceived vision 2030 that was launched in 2016 (Wald & Ansdell, 2018). With only a decade and a half to develop the kingdom into an economic hub and a world destination, a number of projects were conceptualized in the realistic approach of modernization of Saudi. As the world continues to grow, technology is shaping the socioeconomic environment in a number of ways (Abdelfattah, 2017); thus, Digital transformation in Saudi further provides the avenue for sustainable economic growth in the future.

The modern economy in the world today is driven by technology that is necessary for economies such as the Saudi economy to transform itself for it to remain competitive in the current economic environment (Abdelfattah, 2017). With the ongoing adoption of internet and communication technologies that have opened up Saudi for business, the digital transformation will play a critical role in enhancing sustainable economic growth in KSA. As one of the vital pillars of the Saudi's vision 2030, technology will play a crucial role in enhancing the way businesses are carried out in the kingdom with the aim of diversifying its economy from the single model of oil exportation (Wald & Ansdell, 2018). It is within this domain that digital transformation will not only modernize the kingdom, but also it will effectively enhance the effectiveness and performance of economic actors in the region and the world in general.

Thus, the thesis is commissioned to evaluate and articulate the role that digital transformation will play in enhancing the Saudi's kingdom as a flagship for achieving vision 2030. The paper will be focused on tackling the concept of digital transformation in Saudi and the unique impacts that transformation will have on the way the Saudi economy operates and its benefits. This study will be focused on understanding the dynamics of the digital transformation and the implication these changes will cause in the economy of Saudi.

Problem Statement

As technology continues to shape the current and future business orientation, Saudi needs to adapt to these changes that continue to impact the socioeconomic world today. With its ambitious economic development and diversification in just a decade and a half, the digital transformation will enhance the realization of this vision (Abdelfattah, 2017). As such, to compete effectively in the world economy today and to improve its effectiveness and performance, it is essential for the kingdom to digitize its critical economic sectors for sustainable development. Without appropriate technology, the ambitious vision 2030 is likely to fail. This is because of the underlying reason that one of the modern driving engines is technology in the current and future economies (Wald & Ansdell, 2018)). Consequently, there are a number of factors that need to be considered during the transformation as the Saudi's

economy is unique from the Western countries such as the United States where digital transformation has worked effectively.

The current thesis will, therefore, seek to establish the digital transformation overview with the aim of integrating its impact to the Saudi's vision 2030. During the first phase of urbanization between 2003 and 2013, cities such as Riyadh experienced rapid growth. In this second phase there is a need to transform the city such that it can effectively compete to other cities in the world (Wald & Ansdell, 2018). The key pillars of vision 2030 are to enhance investment both locally and increase Foreign Direct Investment (FDI) in Saudi that will ensure a critical role in achieving vision 2030. In the process of making Saudi cities to be attractive for business and investments, the digital transformation will play a critical role in boosting investments in the kingdom (Ellyatt, 2018). Thus, this thesis focusing on the role or the impact that these digital transformations will have in Saudi's economy is a critical aspect towards achieving the vision within the shortest time possible.

Aims and Objectives

General Objectives

The study aims to explore the impacts of digital transformation in Saudi Arabia's economy with a special focus on the country's vision 2030. Technology is considered to be the primary pillar in this development plan. Thus, the study will be focusing on how the digital transformation will boost the realization of Saudi's vision 2030 and diversify its economy.

Specific Objectives

a) To find out the extent to which, digital transformation could influence the realization of Saudi Arabia's vision 2030 and its impact on the economy.
b) To articulate the unique aspect of Saudi Arabia's economy and how digital transformation will enhance its economy performance and effectiveness within the Middle East region and the world in general

Research Questions

The critical question that this thesis seeks to address is what role digitization will play in enhancing the Saudi Arabia's economy to be competitive in the international front.

The research will further answer the following questions:

a) To what extend do digital technologies play in developing a sustainable economy in the context of developing economies such as the Kingdom of Saudi Arabia?
b) What are the challenges that digital transformation face in its implementation in Saudi Arabia?
c) What strategies have been put in place by the government and Vision 2030 managers in ensuring that Saudi Arabia successfully digitizes for the benefit of its economy?

Significance of the Research

This thesis highlights the impacts of digitization or digital transformation that has been led by Saudi Arabia's vision 2030 and the significance on its economy. Thus, the study will aim to articulate fundamental issues to the enhancement of digital transformation in The Kingdom of Saudi Arabia (KSA) and the impact of such a transformation in its economic sustainability and development. In this context, the study will highlight the unique environment of Saudi Arabia and identify the critical digitization program that could be important in achieving the kingdom's vision 2030. Traditionally, Saudi Arabia's economy has been primarily based on oil and the petroleum products; thus, the thesis will further articulate how digital transformation will enhance diversification of the economy in Saudi Arabia. Most importantly, the research will provide a framework for digital transformation that will improve the implementation of digitization policy within the domains of vision 2030.

Based on the significance of digital transformation in the modern economies, the study will do exhaustive researches on Saudi's economic environment to determine the impact this transformation will have. In this regard, the study will develop a model and adoption strategies that can be used in the case of Saudi to enhance the sustainability of its economy and its diversification.

Literature Review

In the recent past, developing economies have experienced drastic changes and shifts in the technological application within the socioeconomic environment that continues to influence the economic development of these economies. According to Kowalkowski et al. (2013) data gathering and digital content has revolutionized the socioeconomic environment within developing economies that have seen diminishing of tangible assets in value creation. It is within the same context that Setia et al., (2013) asserts that with the development of digital content and its value creation in economies, the world economies adopting these technologies are growing at a high rate in the modern world. The same views are echoed by Hanelt et al. (2015) who asserts that digital technologies such as cloud computing, big data, mobile technology, and social media induce fast and critical changes in the economy. Thus, economies like the Saudi economy, through digital transformation will effectively effect changes that are critical and vibrant in the realization of its vision 2030 with a sustainable environment.

Within the art of economic development and sustainability, there is the context of business effectiveness and performance in an economy that will have a number of implications. For instance, with business effectiveness and performance in an economy, the unemployment

rate within such an economy reduces significantly as technological innovations continue to shape the economic demand and its growth. According to Kane et al., (2015) economies with a digital strategy create an effective digital transformation that further facilitates growth and value creation in an environment; as a result, there are more economic opportunities in such an economy. For the case of Saudi, there has been a critical concern of over-dependent on oil products to support its development agenda that is risky considering factors like; oil prices volatility and oil shocks (TAHER, 2016).

Other scholars in the same context have articulated the importance of digital transformations in the concept of socioeconomic development and sustainable economies. According to Fitzgerald et al. (2013) digital transformation has three critical impacts on the economy within any set-up all over the world. These impacts can be well articulated with three critical contexts including; customer experiences, new business model and streamlined operations. Based on the unique socioeconomic environment of Saudi and its single variable economic model of oil exports, the digital transformation will create new business opportunities for active development. The new business model that would be as a result of Saudi Arabia is open to the international markets that have led to the increase of FDI from 3.2% to 5.7% over the last six years. Thus, there will be increased economic opportunities for the local markets especially the labor market that will further enhance the performance of the Saudi economy.

According to Westerman et al. (2011), digital transformation can be easily referred to as improving performances or the act of reaching enterprises through the use of technologies. This definition can be related to the upcoming new business ideas and the vast improvement in the organization's activities. The introduction of new digital technologies and business systems will impose and enhance developed business architectures for investors. This will integrate the development of business architectures. In the creation model, industrial platforms will record severe improvements hence boosted productivity will be recorded. As a result, employment creation to the youths will arise. Saudi's youths will get exposed to the arising job opportunities.

The development of digital technologies acts as remedies and lower the development cost of platforms with high scalability (Van Alstyne et al., 2016). This has resulted in the establishment of digital platforms to combine new technologies and assets outside the scope of any individual organization. As organizations undergo digital transformations and exercise the new value creation models, old business models are generally not applicable to the upcoming business models and their environments hence new business models are required (Berman & Bell, 2011). For efficient transformation of business models, a clear definition and classification is required. This thesis adopts the definition introduced by Libert et al., (2016) as classifying the operation of firms into four major business model categories: service provider, asset builder, network orchestrator, and technology creator. The four define the delivery models and objects of the organization.

El Sawy and Pereira (2012) states that the upcoming digital technologies come up with connected digital systems which consist of existing and new actors in the industry working with the new structures and rules concerning collaboration, value creation and industries' products. The unique digital business ecosystems and digital operating environments result in the demand for digital business models. In concert with the new business environments and ecosystems, identification and collaboration with the networks that exist within organizations is required.

This digital transformation obliges the organizations to update their business models, focusing on systems of organizations and that of people.

The digital transformation literature indicates that both management and corporations acknowledge the importance of digital ecosystems and strategies. Despite the improved significance of this transformation, organizations face challenges in starting and implementing digital transformations (Fitzgerald et al., 2015; Westerman et al., 2011). Classifying the problems of digital transformation and solving digital strategies as explained by management would act as a solution to these challenges. This can be done by highlighting and categorizing these challenges recognized in digital transformation and developing a framework concerning digital transformation challenges.

Digital transformation limitations can be categorized into transformation challenges, innovation challenges and governance challenges (Abdelfattah, 2017). These challenges can be overcome by digital initiatives such as new products, business model innovations as well as value creation models. Ideally, these challenges do not appear in isolation but highly interact in various organizations, and different transformative initiatives may contain different problems even with similar organizations (Surf & Mostafa, 2017). A collection of these challenges and the running digital initiatives develop a firm interactive environment and iterative digital initiative execution process.

Transformations may be accompanied with various challenges like lack of vision or incremental vision concerning digital transformation. Fitzgerald et al. (2013) explain that transformations commence with a view from the higher management, and in accordance to Westerman et al. (2011), most crucial digital transformation benefits are as a result of profoundly transformative activities. The proposed vision should be transformative and radical rather than incremental. However, setting up a successful vision is not so easy: Fitzgerald et al. (2013) realized that in their study, only a third of the respondents felt that the top management had introduced a vision for digital transformation.

According to (Westerman et al., 2011; Fitzgerald et al., 2013) another critical challenge to digital transformation is the lack of impetus and urgency. This challenge is commonly affected by the previously successful organization, as previous high performance lowers the awareness of digital opportunities and kills the motivation to promote digital transformation. This thereby acts as the most common organization barrier in terms of digital transformation.

Another challenge which may be included is threatening of current power structures (Fitzgerald et al., 2013). This challenge may be described as resistance to change due to internal politics and defending of for instance system and organizational structures, traditional technologies and structure and value creation chains. This indicates that digital transformation does not appear in isolation and widens the limitations to consider institution rigidity. The existing relationship between organizational actors in the business ecosystem and value chains which exists on established actors develops organizational resistance to change.

Innovation challenges may consider organizational factors which lower the digital innovation activities in organizations. The digital transformations decrease the products' lifecycle, business models and processes. The transformations also highlight the importance of constant innovation. Lack of innovation culture may be described as a significant challenge.

According to Kane et al. (2015), organizational culture is essential in enhancing digital transformation, and that the existing relationship between digital technologies and corporate culture should be right in order to promote digital opportunities. The innovation culture entails various difficulties such as competing for organizational priorities, risk aversion and resistance to novel technologies and approaches (Westerman et al., 2011; Kane et al., 2015). In innovation culture, poor skills and capabilities can be a digital transformation challenge (Westerman et al., 2011; Kane et al., 2015). The digitally talented workforce can be considered as one of the most common features in organizations undertaking digital opportunities.

Research Design and Methodology

Research design

The research adopts an exploratory study that aims to articulate and identify the impact of digital transformation in Saudi economy within the framework of its vision 2030. The research design was based on the online survey of stakeholders in the digital technologies sector to facilitate some economic benefits that have been achieved so far. The steps that have been made in digital transformation and the impact this transformation has brought to the economy were further articulated by the members of the public who took part in the study. The study used social media with its comprehensive coverage to involve the public in the conversation of the impact digital transformation has brought to Saudi's socioeconomic environment.

The study employed the use of interviews and questionnaire in its data collection. The focus was based on the impact of the digital transformation in the oil-rich KSA and how this digitization could create new economic opportunities in enhancing the competitiveness of KSA in the international markets. Factors such as Foreign Direct Investment (FDI) were explored based on the study's underlying assumption that digitization could enhance investment attractiveness on the kingdom of Saudi in its ambitious plan of economic growth and development by 2030. The study utilized online based questionnaires to collect the primary data for the research and its analysis for the useful articulation of the impact of the digital transformation of the Saudi economy.

The survey contained ten questions with seven close-ended questions and three open-ended questions that were effective in enhancing the findings of the study and its discussion. Additionally, interviews were carried out with the digital policy board members of Saudi to validate the findings of the investigation. In developing the credibility and objectivity of the research, the research used random sampling technique in having a holistic view and result to the study.

As this was an explorative study, all aspects of digital transformation were well captured including its context within the KSA's vision 2030 and its current role in achieving the ambitious plan of the kingdom. Due to the critical role that digitization is having within the modern economies, the questionnaires were targeted on specific groups of individuals who are already involved in the digital world. It is within this basis that the study selected randomly five groups

of 20 members each to pursue the reliability and validity of the data to be analyzed in the study. In these groups, all individuals were required to fill an online survey that entailed the different digital platforms, significant concerns and the positive impact of the enhanced technology in the economy of Saudi. As the study was voluntary, some member in the groups did not fully complete the survey thus, out of the 250 results that were projected only 75 were completed that were used in the study. Therefore, this thesis was guided by the primary data that was obtained from an actual participant in the Saudi's digital transformation for vision 2030 and its impact of the Kingdom of Saudi's economy.

Target Population of the Study

The study targeted the general public who are involved in the digital world. To boost the study findings and conclusion, the study took a population sample from individuals in the higher learning institutions and those in the corporate world especially in the tech industry. The survey was based on the current situation of digital transformation and its impacts in the economy for the realization of vision 2030 in Saudi Arabia. The population was randomly selected to enhance the results that involved the whole view of the people of Saudi especially those identified as the beneficiaries of transformation. Thus, the impact of this transformation within the population was more realistic based on the fact that the number of people that responded were either experiencing the said impact or had a deep knowledge on the importance of digital transformation.

The study further focused on the critical sectors in the Saudi's economy which are the financial markets and the banking industry that were identified to be highly impacted by digital transformation. The realistic approach within the communication sector and its impact on the economy was further noted based on the role it plays in the digital transformation and vision 2030. The study was keen on the nature of response it used for its data analysis based that the primary objective of the study was to have a recommendation that would be implemented in Saudi economy.

Data Collection Methods

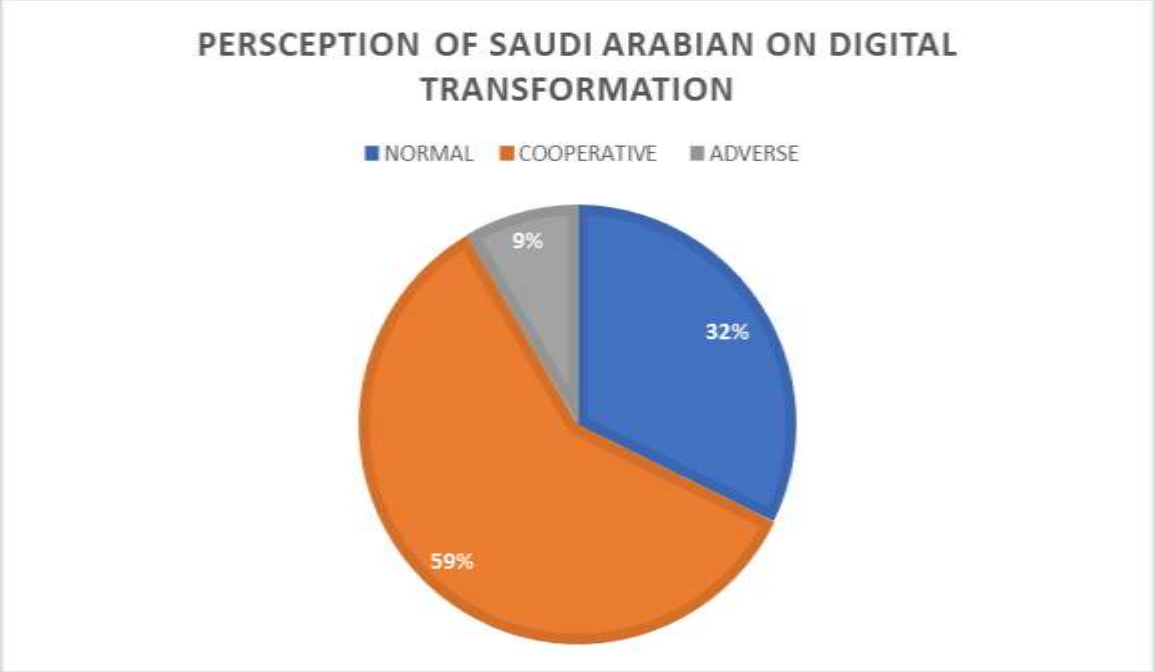
In the effort to enhance the validity and reliability of the study, the thesis involved both qualitative and quantitative data methods with the aim of having a more conclusive data analysis and the results of the study. The thesis methodology was based on online questionnaires that had a sufficient impact on time management and budget of the research.

First, the thesis obtained 250 participants willing to take part in the survey; those identified were categorized based on their line of work or involvement in the digital platforms in Saudi. The first samples of 50 participants were from the communication sector in Saudi. The second sample was 50 individuals from the general public mostly college students who were actively involved in social media as a digital platform. The third sample of 50 participants was from the Vision 2030 implementing committee on matters of technology who were experts in technology transformation. The fourth groups of 50 participants were from the business community in Saudi who use technology advancement in their organization mostly from the financial and banking industry. Finally, the last 50 participants were from the government

agency tasked to implement and realize Saudi's vision 2030 on the economic agenda for the country that was aimed at diversification of the economy.

Data Analysis and Interpretation

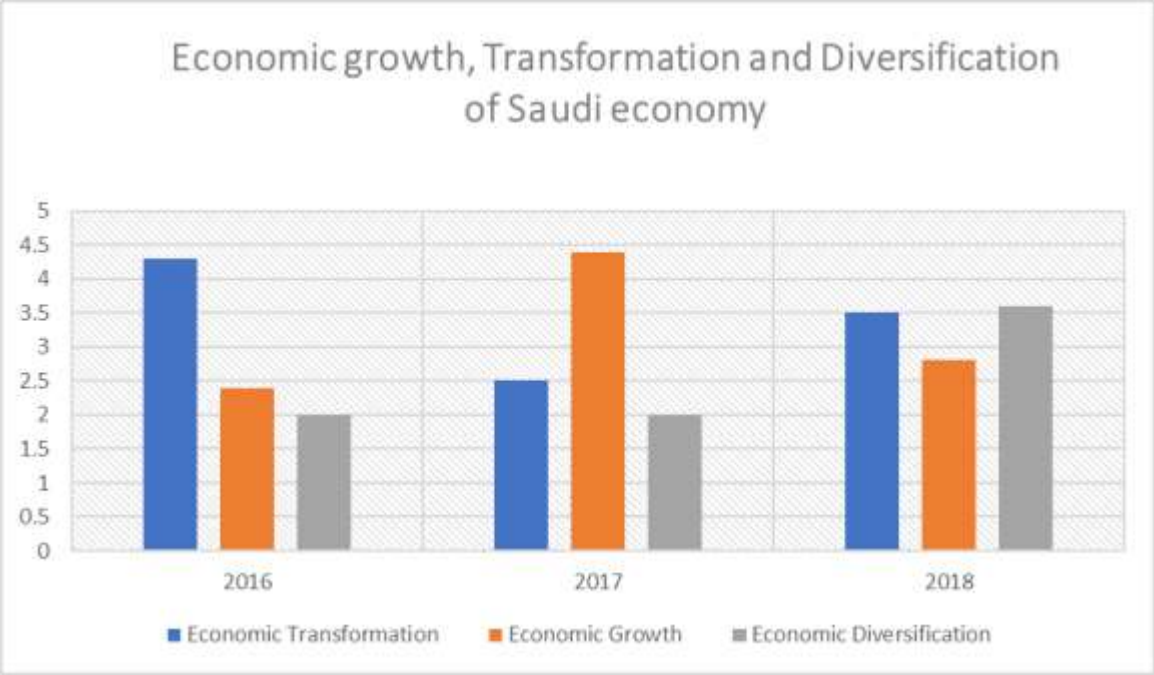
Figure 1: **The attitude of the people of Saudi on the notion of digital transformation**



Source: Primary Data

Based on the data as shown in the Pie chart, it is clear that the vast number of Saudi Arabians who took part in the questionnaire was cooperative with the new development in the digital transformation agenda. The online survey focused on the general perception of individuals who were actively involved in digital platforms from the social media to tech-based organizations and innovation centers that have been set-up by the government. In the study, 59% of 250 participants who were involved in the survey were cooperative in terms of driving the government agenda of digital transformation. Also, it was important to note that individuals who took part of the survey were mostly the literate in the society with 32% of the interviewed having a normal perception that it was only for such transformation to take few. However, 9% of the participants felt many negatives had been brought by digital transformation such as culture erosion in the society and westernization of Saudi Arabia norms and customs. It was interesting that despite such divisive opinion of the general perception of digital transformation in the Saudi economy, all those interviewed agreed that there was some economic value that could be attributed to digital transformation. A large percentage of those who took the study concluded that digital transformation in Saudi had significant socioeconomic values in the economy.

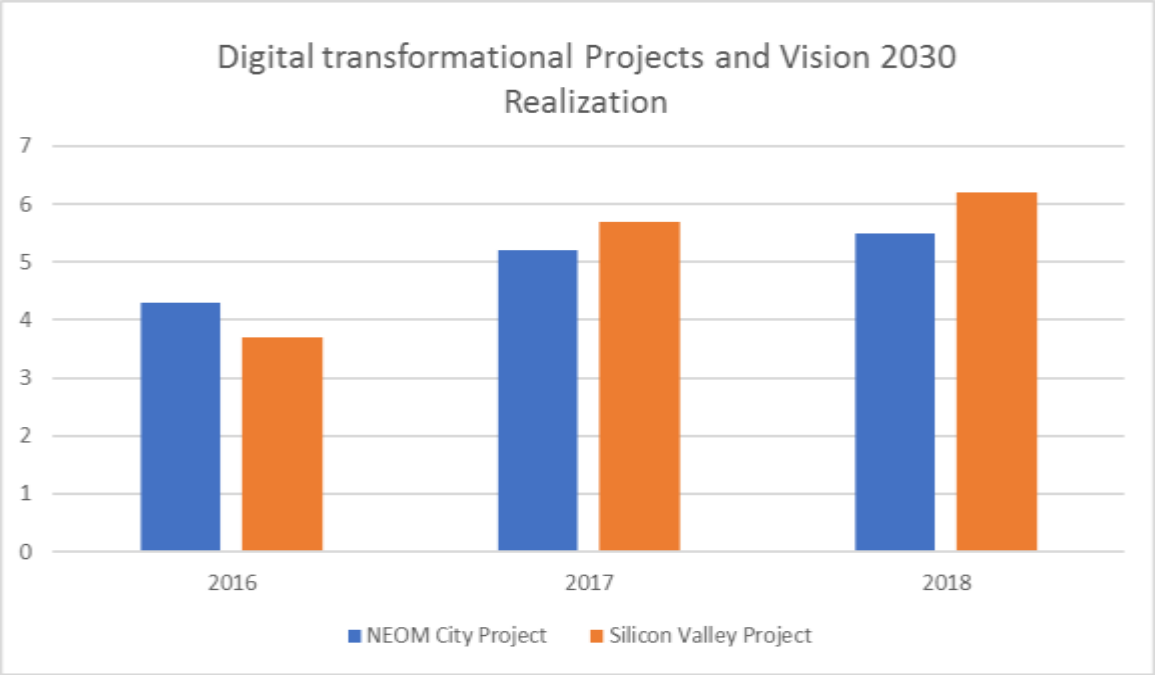
Digital transformation in economic growth, Transformation and Diversification of Saudi economy



Source: Primary Data

In the Skype interview, the study sort to find out whether digital transformation had brought three critical pillars in any economy including economic growth, transformation, and diversification. Those involved in the Skype segment of the survey were to respond to their observation from 2016 when the vision 2030 was developed progressively to the first quarter of 2018. In the study, over 72% of individuals argued that digital transformation had brought critical and rapid economic transformation in the current agenda of creating a sustainable environment in Saudi. Similarly, 48% of those who took part in the survey argued that economic growth had been brought as a result of digital transformation while 40% were on the notion that digital transformation had enhanced economic diversification. In the survey, the figures were consistent in the sense that all the 20 participants on Skype agreed that digital transformation had brought economic diversification, growth and transformation is Saudi.

Figure 3: Modern Digital transformational Projects that have been undertaken by the Saudi Government towards Realization of Vision 2030 in Saudi?



Source: Primary Data

NEOM City Project

With the positive impacts being articulated from other economies on the role of digital transformation, Saudi has invested $500 billion on the NEOM City project that has contributed to the boosting of FDI in Saudi Arabia (Biryukov, 2017). There are positive impacts that can be attributed to this futuristic project as it has already shown critical implications of digital transformation in the world today. The project is projected to enhance economic sustainability in a post-oil era in increasing the economic opportunities of investments and its future orientation in the modernization of Saudi Arabia (Brahimi, Salam, & Alqahtani, 2018). Since the inception of the NEOM city project, the net inflows of FDI have risen from $7.453 billion to $8.936 billion in 2016 financial year (Biryukov, 2017). As the Prince of Saudi Arabia Mohammed bin Salman continues to introduce liberalization reforms in the economy, the FDI will continue to grow by the day as the government continues to invest in other areas (Farag, 2018).

As this continues to shape the socioeconomic environment in Saudi, there are a number of impacts that are ascribed to digital transformation in the Saudi economy. There is an increase in job creation for the kingdom's young graduates as the level of education in both genders continue to grow (Biryukov, 2017). In Reality, the situation continues to shape the future of the Saudi economy based on its innovation, easy means of communication, effective ways of production and enhanced international trade (Farag, 2018). It is within this domain that digital transformation is impacting the socioeconomic status of Saudi Arabia and the entire region. Thus, the NEOM city project has played a practical role in enhancing economic sustainability, and its diversification form the hydrocarbon-based economy to a multi-dimensional economy in all sectors.

Silicon Valley Project

In its infrastructure development, Saudi has further invested $1 billion in the Silicon electric car manufacturer to establish its modern and fast transport system (Pal, 2018). The electric car investment is a critical step in the Saudi economy as it further enhances the shift from its current oil-based wealth economy to a more economic diversified portfolio (Wonglimpiyarat, 2015). The decision further enhances Saudi's environment conservation agenda from the current dependence on hydrocarbon fuels to a more environmentally friendly means of transport. The electric cars will be designed such that they can go over 240miles to 400 miles in every full charge that will not only enhance the economy through transportation but further it will increase Saudi's FDI with efficient energy (Greenberg, 2017).

In its bid to enhance the electric motor project in the Silicon Valley, the Saudi government gave the contract to Lucid motors to manufacture electric cars to the specification and needs of the Saudi economy (Greenberg, 2017). Based on Lucid's advanced technology in the electric vehicle, it is expected that the project will not only enhance the current digitization of its economy, but also will give the Saudi economy a competitive advantage in the market. Thus, improved transport within Silicon Valley and other economic hubs in the kingdom that will benchmark project within the Middle East economies (Pal, 2018). According to Greenberg (2017), it is vital that the Saudi economy in the path to achieving vision 2030, the Lucid company will play a critical role in enhancing economic growth and sustainability in the region. Economic diversification could be useful in the completion of the Silicon Valley project based on the role it will play within the transport system, and it will help the kingdom to shift from the current hydrocarbon based-economy to a more energy efficient economy.

Discussion and Conclusion

Social Changes in Saudi Arabia

Within any development agenda, the social context has been a critical aspect of the development plans to effectively impact the living standards and social growth of a society. In the Saudi's social contract within the domains of vision 2030 and economic development, the kingdom seeks to enhance community participation through implicit consent to improve digital transformation (Alomi, 2017). The social contract notion has been well articulated within the basis of corrective demand of the fundamental rights, laying the adverse impacts that the transformation could have for the people and enhance the positive effects (Al-Judaibi, 2017). It is within this description that the paper seeks to adequately analyze the social changes that have taken place within the social fabrics of Saudi Arabia and its contribution towards digital transformation and alignment to vision 2030.

In the ambitious socioeconomic development plan to be the top 15th economy in the world from its current 19th position, the Saudi authorities developed a plan to diversify their economy from hydrocarbon-based to a more sustainable economy. With the dynamic prices of oil in the market, the social context of the region is changing with most of its citizens becoming the working age. As such, the government had to sort ways to effectively enhance employment creation for the ever-growing populace of the kingdom (AlShammery, 2016). For the economy to be competitive, the government designed ways to effectively improve shift from the

hydrocarbon economy that contributes over 85% of its economic incomes to other production areas. Thus, the authorities are articulating to effectively utilize the oil wealth that was accumulated especially from the 2003 to 2030 oil booms to contribute to extensive economic benefits such as employment, better public services, infrastructure and modernization of the economy (Elgimari, Alshahrani, & Al-shehri, 2017).

The population of Saudi Arabia is growing by the day due to adequate health care services that have been implemented over the years, with a better living standard for the citizens of the kingdom. With positive health care outcomes in the Kingdom, by 2020 most of the Saudi Arabian youths could have become of age and require employment that could not be granted in the current hydrocarbon based-economy (Brahimi, Salam, & Alqahtani, 2018). Such reality continues to hit the economy due to the growing migration to the region for international corporations that have identified Saudi as an investment destination in the Middle East Region. Thus, there is an ever-growing demand for effective communication within the economy and abroad to effectively enhance business within the Saudi Economy (AlShammery, 2016). As a result, society has increased the demand on the ICT and digital technologies to improve the business transactions in the region. Based on public spending on infrastructure, health care, and education, there is a critical increase in the demand for digital services in the area based on the real concept of digitization in the region.

For instance, the growing number of educational institutions such as Universities and research centers on the economy have a sharp demand for ICT and modern technologies to effectively undertake their functions (Brahimi, Salam, & Alqahtani, 2018). With such increased demand on digital technologies following the change of the social context of the kingdom, the government through public spending has enhanced spending of modern technologies such as ICT to boost learning in the kingdom and attract FDI in the region (Pal, 2018). By the day, most youths in Saudi Arabia are developing an interest in research and education as a critical civilization for the modern world that could enhance the kingdom's prosperity in the future. It is through the change in the social fabric of the kingdom that has led to the current growth of interest in the digital markets that is more effective in areas including research, communication, and innovation in the region that needs to shift from the hydrocarbon-based economy (Elgimari, Alshahrani, & Al-shehri, 2017). Imperatively, the social changes in this context have further enhanced digital transformation in the Kingdom with its vision 2030 and the role in the economy.

As the level of education increases in the kingdom, there are more and more people getting involved in the digital world that has been well articulated through the kingdom's vision 2030. There is a sharp need for economic diversification through the use of ICT and communication technologies in enhancing productivity in the region in the growth of other sectors (Brahimi, Salam, & Alqahtani, 2018). With the increased demand for telecommunication services within the domestic market and abroad, there has been increased government investments on the telecommunication sector that further contributes to economic growth and digital transformation (Elgimari, Alshahrani, & Al-shehri, 2017). As the Saudi Arabian youths continue to enroll in higher learning institutions, there has been an increase in internet penetration in the kingdom that continues to shape the social environment of the kingdom. Thus, the social changes in the kingdom have contributed effectively to the current digital

transformation that is experienced in the region due to public spending on education, health care and research in the economy.

Role of Women in Saudi Arabia's Digital Transformation

Economic transformation and digital transformation in the contemporary world can be described as the engine of the modernization of economies around the world with the government struggling to establish strategies for transformation (Winkelhake, 2017). Within this bold and ambitious economic development plan, the 2030 vision aims in strengthening the role and contribution of women in the economy in its notion for economic growth that will benefit everyone. Thus, the development agenda and economic diversification within the socioeconomic environment was based on enhancing opportunities for all in the kingdom including women who traditionally have not been actively involved in the economy.

Women in Saudi could contribute effectively to the development agenda and the realization of vision 2030. Over 50% of Graduates from the Universities in Saudi Arabia being women, there is a critical role they could play in enhancing economic and digital transformation in the economy (Winkelhake, 2017). The government in this regard continues to develop their talents and investing in women capabilities in various production areas that continue to strengthen the future contribution of women in the society and the economy. Thus, it is critical to note that women have contributed to the current increased levels of literacy in the kingdom that continues to shape the digital era in Saudi Arabia (Moshashai, Leber, & Savage, 2018). With 50% of its graduates being female, the government needs to encourage the women to participate in various sectors of production that could guarantee positive change in the socioeconomic environment of Saudi Arabia.

In the past, women continuously played a restricted role within the society. The shift to allow education for all in the society further has contributed to the realization of vision 2030. With the bold decision for the government to involve women in the national development agenda, the government allowed women to drive as from 2018 and watch live sports in Riyadh, Dammam, and Jeddah. As much as these announcements may seem simple to western economies, these are positive steps towards enhancing equality in accessing economic growth in the kingdom (Moshashai, Leber, & Savage, 2018). As such, there is a critical trend that continues to unfold in the kingdom especially as far as the role of women in economic development is concerned as a number of traditional beliefs are being melted down. It could be best articulated that the involvement of women in activities such as driving and watching live sports in stadiums could have a long-term impact of the society's perception of women and the role they could play in the economy.

The realistic approach to close the gender gap in the economy is well articulated in the manner in which the government is encouraging women to participate in the economic activities in the region (Winkelhake, 2017). As a result of the government efforts in empowering women economically, there has been an increase in the number of women in Saudi's workforce that are involved directly in the economy and the realization of vision 2030. As of recent, up to 30% of

Saudi's workforce are women that have been engaged actively in the private sector which constitutes a sharp increase from 12% in 2011 to 30% in 2017 (Moshashai, Leber, & Savage, 2018). Thus, over 500,000 Saudi Arabian women entered into the labor market representing the highest number of women involved in the economic development over the years.

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