The Implementation of E-government in the Industrial Revolution 4.0 Era

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Abstract: The implementation of digital government or e-government within the generation of the commercial revolution may be very powerful on day-to-day life of people. The evolution length in the direction of the "industrial revolution era 4.0" may be very exciting to deliberate. This have a look that makes use of a qualitative technique this is literature study or research. Qualitative studies are studies that provides data within the structure of descriptive facts and notes that confined the textual content under the observation. The e-government estimate at the improvement of the commercial revolution should have the excellent method to be able to reap the specified motives. The e-government plays a vital role in every citizen the respective to their nation, that is in all the nations that is in all the nations the government is implementing electronic government to improve their services and provisions provided for their citizens. Today is the era of 4th industrial revolution with new digital technologies.

The major objective of the study is to learn about the implemented technologies in the fourth industrial revolution using the qualitative analysis. Here the meta synthesis approach is used for the qualitative analysis. The meta synthesis analysis is approach is defined as the coherent and approach to analyze the data through qualitative analysis. This procedure enables scholars and researchers to analyze a particular research problem. As a result of the quality team analysis the author found that there are many areas where the electronic government uses fourth industrial revolution. For example, in earlier days the government in earlier days the government was storing or keeping the data in the files and actual papers but now they have been digitalized. Due to digitalization these documents are tamper proof and secure from third parties.

Keywords: E-government, Industrial revolution 4.0, Digital transformation technologies, Qualitative analysis, Meta synthesis approach.

1. INTRODUCTION

The electronic government or the e-government is generally defined as the application of ICTs (information and communication technologies), this provides government functions and works with the objective of transparency, citizen participation and efficiency. Every citizen will be having a reason to contact are to interact with the government in his or her life at least once[4]. The government is known to be the only largest source of provision and creation of information, but it also opening the similar like a service for their clients. The government may have many clients or the customers like private business organizations, government departments, ordinary citizens and government employees. The complexity of managing the businesses depending upon the government for the customers becomes more. In this scenario an alternate or a parallel efficient technology is needed to manage such huge complicated networks and tasks. This is the only reason why the government implemented ICT for managing those operations this in turn led to digitalization.

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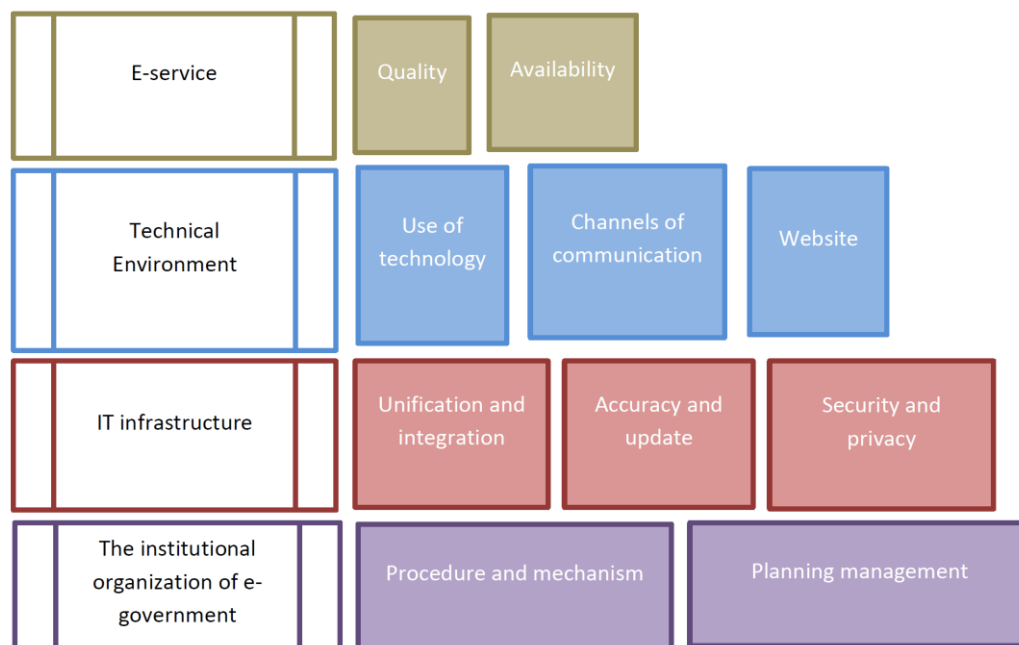
At the time of first generation of computing, the capital to maintain the mainframe computers was too high for many individuals and those computing equipment were only owned by large private enterprises and government [33]. That is the computers was not so common and was not cheap or it wasn't so basic need in those days. In the second generation the minicomputers were brought, afterwards third generation brought LAN along with microcomputers which succeeded due to dropping of expenses with additional connect ability. The fourth generation computing perceived comprehensive propagation of the Web and the Internet consequently provided that comprehensive connectivity or the cross border and efficiently combining information and communication technologies on the foundation of open standards. The application progress expenses later on diminished due to free circulation and availability of open-source software[26].

Components of E-government Framework for Measurement for Saudi Arabia

Purposes of each component:

- E-service
    - Provide effective electronic services
    - E-service of high quality

Fig. (1). Components of e-government framework.

- Technical environment
  - The effectiveness of website
  - multi-channel service delivery
  - spread the use of technology
- IT infrastructure
  - protect the security and privacy of information
  - accuracy and update database and information
  - unification and date integrity in e-government
- The institutional organization of e-government
  - preparation and submission of shift to the E government
  - procedures and mechanisms

The international up-to-the-minute systems is always adopted by Saudi Arabia. This up-to-the-minute system does not have a negative impact on its existing system. Yesser has been initiated to apply countrywide E government systems to support rapid services for the public sectors. The project Yesser hat objectives as follows:

- Enhance the productivity and efficiency of the public sectors.
- Provide improved and easy services for businesses and individuals.
- To motivate maximum ROI (return on investment)
- For easy data availability and accessibility.

1.1. The E-government

The e-government in Saudi Arabia was established in the year of 2003, and was created by the ministry of communications and information technology. The E government portal offers around 2500 services for the citizens of Saudi Arabia. The major objective of this provision is to give benefits for the sufficient and quick assistance. These all were created as an E government program called "Yesser" in association with the ministry of finance and communications and information technology communications. Respectable authority has the means of good governance correlated to smooth governance and is convincing and free of Nepotism, Collusion, Corruption with a belief of accountability, transparency, maintenance of the law, and the inaugural of communal contribution [2]. To understand smooth and good authority, particularly in terms of public transparency and accountability, it calls for a coverage route that is directed at converting institutional management and structures, specifically E-Government. So that the means of applying electronic establishments is to flourish network contribution. E-government is an "information technology system" evolved with the aid of using the establishments to enhance social contributions via way of means of giving individuals selections to get tranquil admission to social data [24].

The deployment of respectable authority through efficient and operative social service development necessitates the betterment of electronic establishment strategies and rules. These strategies and rules are structured in "Presidential Instruction Number 3" in the year of 2003 regarding "National Policies and Strategies". The betterment of e-government in all degrees of presidency as complete. Consequently, electronic authorities' socialization desires to be accepted dependably, uninterruptedly and with encouragements to the network due to the fact that individuals do no longer apprehend what and the way e-government packages are and the advantages they are able to take.

The deployment and understanding of E-government has knowledgeable encounters for the reason of the development of the fourth industrial revolution, the complications in deploying e-government is outstanding to the restrained rule as
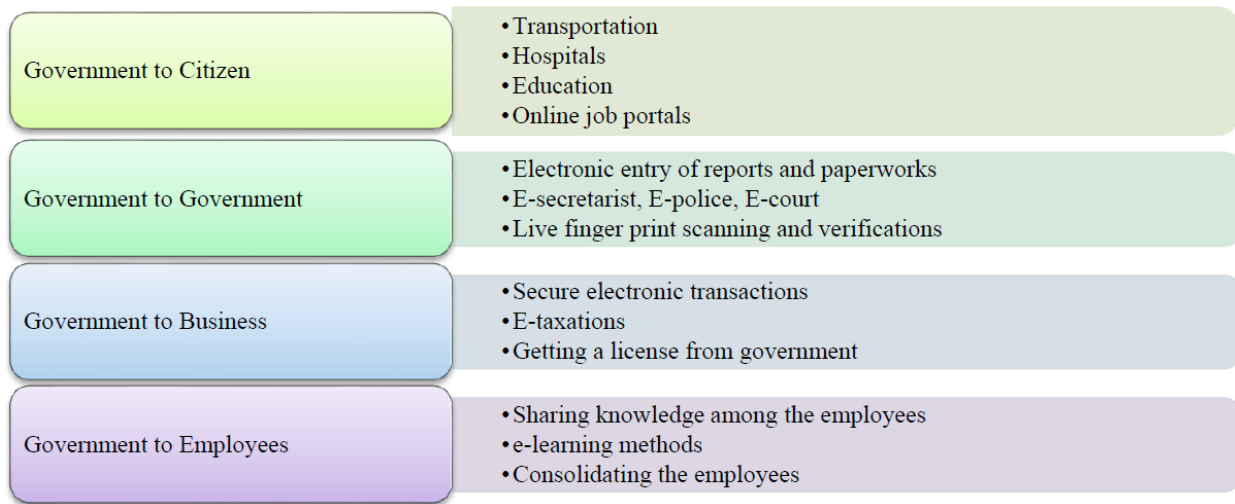
Government to Citizen	• Transportation • Hospitals • Education • Online job portals
Government to Government	• Electronic entry of reports and paperworks • E-secretarist, E-police, E-court • Live finger print scanning and verifications
Government to Business	• Secure electronic transactions • E-taxations • Getting a license from government
Government to Employees	• Sharing knowledge among the employees • e-learning methods • Consolidating the employees

Fig. (2). Types of e-government.

law. At the present time, there may be no rule that definitely clarifies in point the procedure of deploying electronic government along with the disproportion in industrial expansion which is so quick and cannot be terminated. Making everything digital has commenced to go in the breaks in lives. These technical developments have then been broken by many private and public sectors. Many businesses even creative small businesses that use virtual generation in growing their industries [18].

The perception of e-government can increase primarily based on three circumstances, specifically:

- Expansions in the technology of globalization which could originate quicker than anticipated, create problems such as open markets, law, human rights, free trade, transparency, corruption, democratization developed the principal belongings that need to be taken into consideration with the aid of using each state in the event that they do now is no longer need to excepted from development in the world.

- Statistics and technology progresses such as telecommunications and computers are going on hastily in order that information, data and statistics can be formed very rapidly and may be right now distributed to every height of civilization in diverse worlds in only instants.

- Enlightening the first-class of social lives is intimate from the enlightening routine of the personal business in booming out monetary actions. The familiarity among the monetary actors and community such as investors, companies, traders and others has caused in the development of a provider preferred that has advanced from "time to time".

There are mainly four types of e-government services such as government to government, government to citizens, government to business and government to employees [12].

- Government to society/citizen: The government with society it's the first classification among them. This kind of integration between the government

and the citizens helps the society to get provisions from the government in large range of public services. This would enhance the quality of services and improve the accessibility and availability of government services directly to the citizens. The major objective of this service is to create a citizen friendly environment from the government. This would help a citizen in many governments related operations such as renewal of licenses, ordering of birth, marriage and death certificates, income taxes, basic services for citizens like house number, water, electricity and so on [5].

- Government to Business: this type of government service provides Information Services for the businesses. The main motive of government business services east to decrease the complications of business, and also to give quick information and digital communication. Additionally, the government can reuse the data from the report, it also uses an advantage of commotion electronic transaction protocol. This also provides an advantage in reducing the costs and also reduces the complication of interacting with the government. By using this service, the interaction between businesses and government becomes easy and less time consuming.

- Government to government: the services are occurred at two different levels namely domestic level or the local level and the international level. These services can also be defined as the services between the national government and the state government. The government to government is implemented mainly to provide electronic government initiatives by enhancing data sharing, data communication, data transfer and data access. The electronic sharing of data are the information systems among the organizations all the departments and the government agencies. This category is desirable between governments to enable collaboration, between nations and state units in functioning links to social cultural relations, political processes, trade administration, and so on.
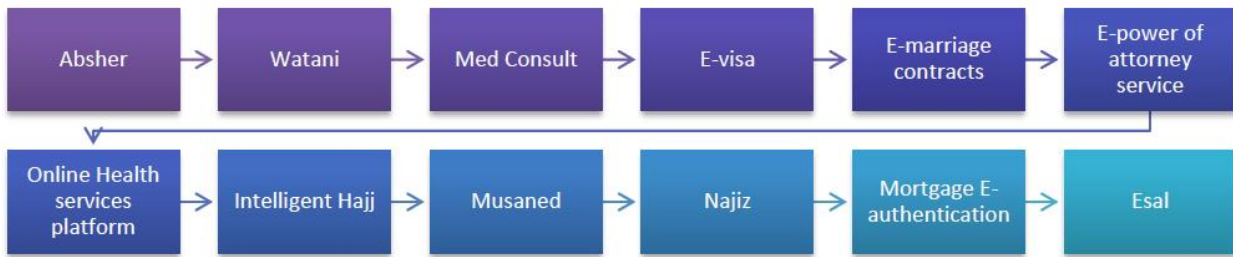
Fig. (3). Applications of e-government in Saudi Arabia.

- Government to Employees: this type is the relationship between online sources, articles add tools that supports the employees to enable the communication between the companies and the government. The electronic governance relationship among the employees permits learning technologies in a simple area called computer system. With this the documents can be stored and shared with others through Internet. Some of the advantages of government to employees are maintenance of the records of personal credentials of the employees like tax information, current address, security numbers a lot more, e-training, e-payroll, and e-benefits and so on. This can be known as an efficient way to provide e-learning for the employees, which will also improve the knowledge among them [5].

1.2. Applications of E-government

The Ministry of Interior brought the smartphone application called Absher in the year of 2015. To support that innovation and transformation in Saudi Arabia, two more agencies were made and connected with the authority to obtain the kingdoms version 2013. The Absher provides a provision for the people to file an electronic complaint against any traffic violation. In the year of 2019, they introduced a smartphone application which designed in such a way that it can take the feedback of residents, citizens and even visitors on their eservice which is given by different governmental agencies [17].

There are four major motives of electronic government. The establishment of management systems must be transparent and effective provisions must be there in the transactions and the services among autonomous regional governments and government agencies. The objective that relationship between community and the government with the business people can be improved economically. This is essential dynamic movement of the society, thus the government must possess the ability to adjust just with the functions among the state, so that the individuals can get the benefits of their rights and can obligate comfortably and safely, altogether can be accomplish improving the scheme of the government, and the government is one method [23].

By applying the e-government, it makes it simple for individuals to access them. The development of public carrier transactions and statistic networks which have best scope that could fulfill the broader network and may be inexpensive in all elements at all time are not restrained with the aid of using time-obstacles and at inexpensive charges through

the network. Creating collaborative relationships with the enterprise global to increase the perfection of the nationwide financial system and support the capacity to address global exchange competition and modifications. Channels verbal exchange and formation of mechanisms with nation establishments and facility of public choice centers for the general public to take part within the formula of country policies [35].

1.3. Industrial Revolution 4.0 Era

The 4th industrial revolution was originated in the year of 2011. This revolution promotes the digitalization of manufacturing. The fourth industrial revolution can be defined as the vanishing of bounds between the biological physical and digital world. It is a collaboration of new and advanced technologies like quantum computing, 3D printing, artificial intelligence, robotics and Internet of Things. The name industry 4.0 was inspired from the Germany's "industrie 4.0", it was a government project to provide connectedness among the manufacturing and digital world, processes and businesses [34]. There are four main impacts of fourth industrial revolution:

- Artificial intelligence and automation
- usage of big data analytics
- cloud technology implementation
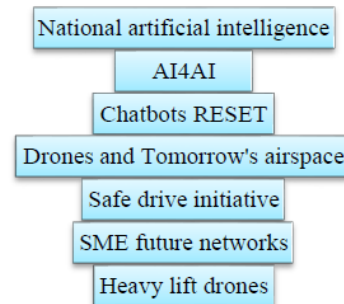- high speed mobile Internet

Fig. (4). Technologies in industrial revolution.

Among these four technologies, artificial intelligence and automation have the major impact on the worldwide workspace. According to recent study, the one by fifth of the worldwide workspace will be all might be replaced by artificial intelligence and automation. UK, US and Germany are on the peak to implement artificial intelligence and automation. They also stated that by coming years half after off the organization accept that the automation would minimize the
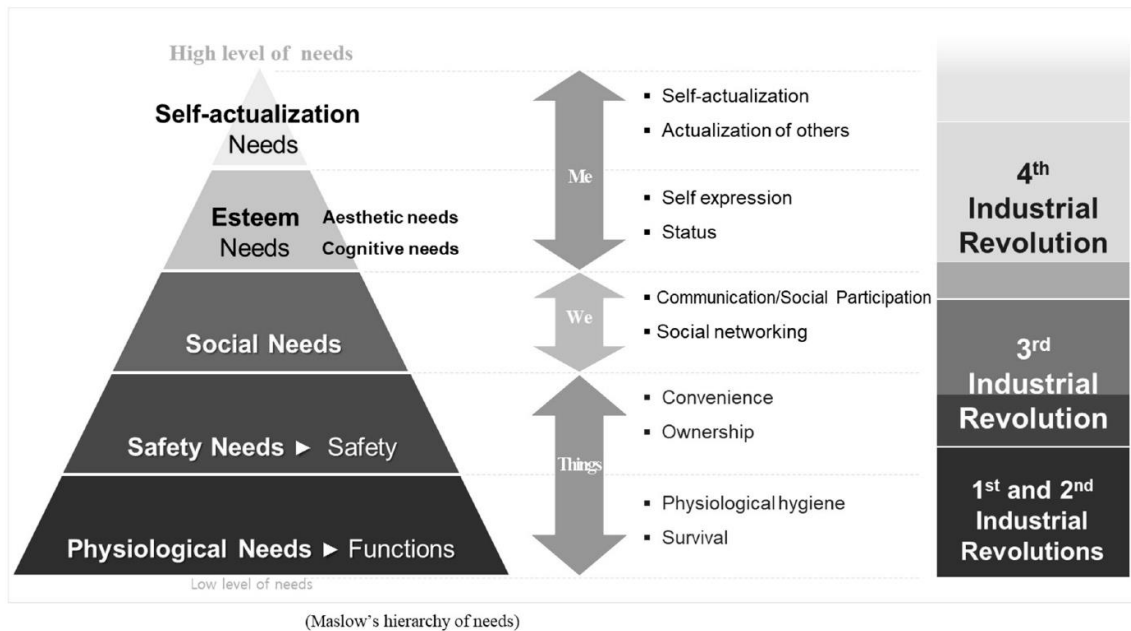
(Maslow's hierarchy of needs)

Fig. (5). Relationship between the Evolution of Industrial Revolution and Maslow's Hierarchy of Needs.

count of full-time workers, and as a result 800 million workers will be replaced by robots around the world [10]. These are several digital information transformation technologies brought by the industrial revolution 4.0. Big data and analytics, autonomous robots, artificial intelligence, cloud, industrial Internet of Things, cyber security technology etc., are some digital transformation technologies C4IR KSA (Center for the 4th industrial revolution Saudi Arabia) has a target to combine multi stakeholder's platform to reduce the risks related to technologies add to increase technological benefits to the people. The major objective of C4IR is to implement latest technologies such as blockchain, drones, artificial intelligence, Internet of Things, autonomous vehicles and smart cities [4].

"Maslow's Hierarchy of Needs" ought to be implemented to provide an explanation for the system of evolution of the industrial revolution which provide an explanation for the system as, the same with the 3rd revolution; nevertheless, phase three creates a primary distinction from the 3rd revolution. The researchers described Industrial Revolution is as "co-evolution between human desire and technological innovation" that is the first industrial revolution was defined as mechanical and physiological desires, the second industrial revolution describes electric generation and protection desires, the 3rd industrial revolution defines the statistics generation and social desires and finally the industrial revolution 4.0 estimates intelligence and desires era[33].

The contemporary technological revolution relies upon on supercomputers, virtual platforms, search engines, and the Internet. For the reason that the delays concerned in adjusting to new procedures, including changing conventional production with on line publication, it takes a while earlier than production increase quickens. In the initial levels of such revolutions, an increasing number of assets are committed to reorganization and innovation whose advantages are comprehended best far later [27].

1.4. Implementation of E-government in the Industrial Revolution 4.0 Era

The industrial revolution 4.0 era can be stated as the evolution of a combined and connection of intelligent society. As a result of researchers, the methodology and trends of the industrial revolution in foreign and domestic countries shows that all objects are connected by the communication infrastructure and industrial structure and economic systems are optimized, in turn it leads to the industrial revolution of to strengthen the country [9]. The arrival of fourth industrial revolution or the digital revolution has brought the E-government as an enhanced part of the government. As a contradiction of the past three revolution, the fourth industrial revolution is not just based on the technology only but it is also based on the biological, physical and digital spheres where the motive is to enhance the developing environment. E-government eventually became the integral part of the government because of the reason that the digital world has become so essential to provide better facilities for the physical and biological world. The E government has evolved a lot along with the evolution of ICT (information and communication technologies). Simultaneously the best mobile technology and artificial intelligence have been enhancing the services that's the government agencies give to the businesses and the citizens.

- Social and professional topics

The social and professional issues in computing is defined as a theory that performs in an association with distinct problems connected with professional and social life. These social and professional topics would deal with computing issues such as freedom of speech issues, privacy, social engineering, hacking, crime and so on. The e-government has an impact from the social topics such as lowered corruption, poverty, alleviation, increased transparency, service delivery and the empowerment of citizens [3].
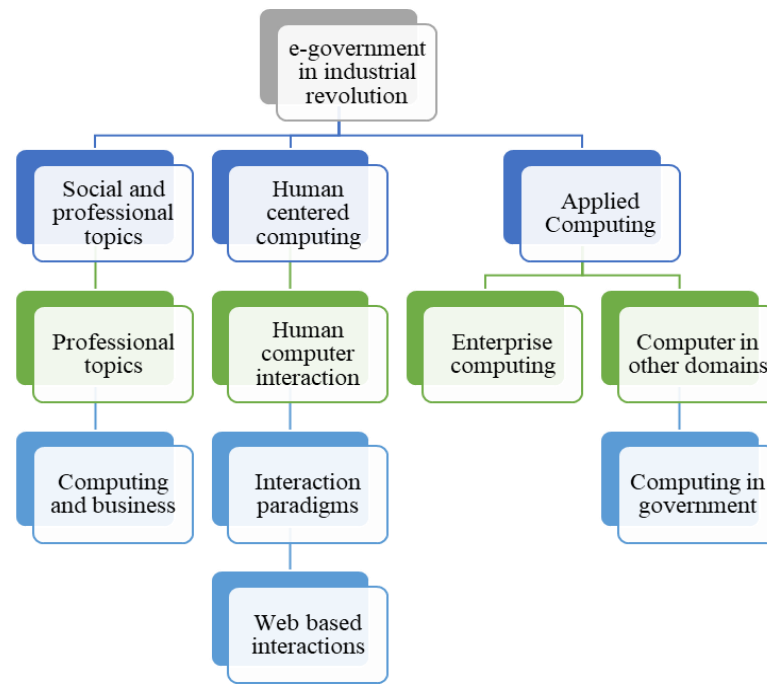
Fig. (6). E-government in Industrial revolution 4.0.

- Human centered computing

The human centered computing is all about the people and how they make decisions and solve the problems. There is another term related to human centered computing "Human centered technology", it means the betterment of usage of technologies. The motive of human centered computing approach is to keep the people's need and priorities on the mind at the period of every phases. The major benefit of human centered computing is it always have a priority to the human needs such as the problem-solving phase would contain iteration, co-creation and empathy. These are main components used in solving business strategies and innovative technologies [32].

- Applied computing

The applied computing is defined as the study of both applied computer science and theoretical computer science. The applied computing uses number of aspects of computer science define the resolution for various problems in different sectors such as business, education, agriculture, banking and even in government. The applied computing aims on the technical computing concepts and in the enhancement of the skills in business strategies and government organizations. In the government sectors, the computer systems are widely used in promoting paperless environment data processing add to maintain database exclusively for citizens. By improving with the time, the implementation of the Internet was also becoming important in the government sectors to provide some public services such as tax payments, passport applications and traffic management etc [20].

Therefore, the e-government is the result of such applications and the improved transparency was the impact of usage of Internet in the government pictures sectors. It is very essential for a huge organization like government to implement the digital transformation technologies because the govern-

ment needs a secure and accessible database. Storing the data and credentials in actual papers and files is unsafe and may be destroyed easily even a fire outbreak can also destroy all the data stored in the actual papers. Storing such data in computer systems would help the e-government or the government to implement easy law enforcement [2].

2. LITERATURE REVIEW

The industry 4.0 is a complete conversion of all components of manufacturing with inside the enterprise via the integration of virtual and network generation with traditional industries. The detail of the rate of facts obtainability, particularly business surroundings wherein all units are usually linked and capable of percentage facts with one another. Industry 4.0 is the combination of IoT and IoS (Internet of Things and Services) and CPS (Cyber-Physical System) into business procedures such as production and logistics and different procedures [25]. CPS is an era to mix the actual world with "cyberspace". This union may be found out via incorporation among computational and physical procedures (embedded public technology and computer systems) in a "closed-loop".

The 4th industrial revolution is a time period to consult a hard and fast of corporations and value chain technology within-side the shape of IoS, IoT, smart factories and CPS. The smart manufacturing facility is a segmental manufacturing facility with CPS era that displays video units the physical technique of manufacturing and then shows it in reality and regionalizes selection making. By IoT, CPS is capable of interconnect with every different and images collectively in actual-time such as with persons. IoS is all carrier programs that may be used by each shareholder each within and among corporations. There are 6 industrial layout ideas in 4.0, particularly modular, virtualization, carrier-orientated, actual-time capabilities, decentralization and interoperability. The 4 primary additives in industry 4.0 are the Cyber-physical sys-
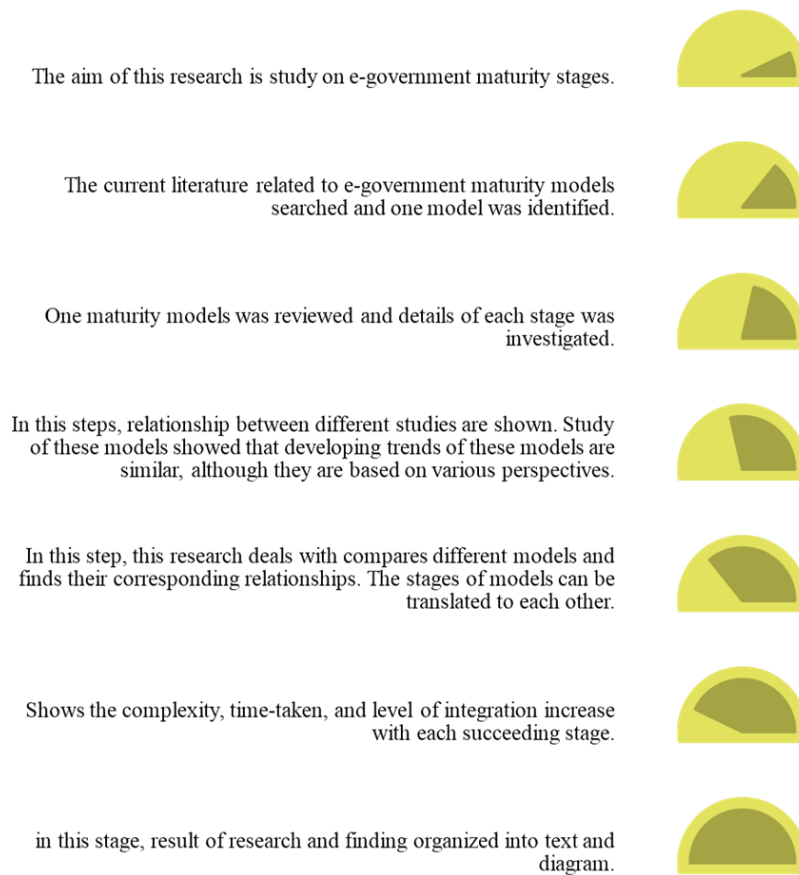
The aim of this research is study on e-government maturity stages.

The current literature related to e-government maturity models searched and one model was identified.

One maturity models was reviewed and details of each stage was investigated.

In this steps, relationship between different studies are shown. Study of these models showed that developing trends of these models are similar, although they are based on various perspectives.

In this step, this research deals with compares different models and finds their corresponding relationships. The stages of models can be translated to each other.

Shows the complexity, time-taken, and level of integration increase with each succeeding stage.

in this stage, result of research and finding organized into text and diagram.

Fig. (7). Steps of meta synthesis approach.

tem (the relationship among the digital world and the actual world), the Smart factory, Internet of Services and Internet of Things [19].

Grounded on a number of the clarifications, fourth industrial revolution may be interpreted as a commercial generation in which all units inside it are able to interconnect in real-time at all the time primarily based totally on the usage of network and CPS generation to reap the intention of accomplishing new standards or enhancing current standards from each procedure within the industry. Challenges to discover what all factors occur in Fourth industrial revolution that are not sufficient simply via way of means of knowledge and their descriptions. Requires an extra complete knowledge of Fourth industrial revolution via the theoretical framework version. In a study conducted in the year of 2013 it provides a great suggestion for the fourth industrial revolution framework model, with three aspects integration such as vertical integration horizontal integration and application of cyber physical system technologies [13].

The initial aspect is horizontal integration, dad defines the combination of cyber physical system technologies and the business strategies in an association with the networks of customers, service providers, partners and other parties. Whereas the vertical integration consists of the way of applying cyber physical system technology Honda production and manufacturing systems to become modular and flexible for the company. And the final aspect includes cyber physical systems technology, this involves the process of including the value from product ranging, production, process of de-

sign, product users, manufacturing, services and so on. There was a huge impact occurred after the integration of eight different procedures as follows:

- actuality of the ethical framework
- standardization
- complicated machine modeling
- presenting directive community infrastructure
- ensuring protection and security
- work and organizational design
- human aid training
- useful resource efficiency

Corresponding the revolutions that came before, the Fourth Industrial Revolution has the ability to elevate worldwide profits ranges and enhance the excellence of lifestyles for populaces across the world. Up to the present time, the ones who've gained the maximum from it were purchasers capable of have the funds for and get right of entry to the virtual world; generation has made viable innovative services and products that would make a growth in the performance and pride of non-public lives. Calling or booking a cab, reserving a flight ticket, shopping for a product, creating a payment, playing music, enjoying a movie, or a game, any of those can here and now be performed remotely. In the forthcoming scenario, technical innovation will even cause a deliver-aspect phenomenon, with long-time period profits in productivity and performance [36].

Conversation and Transportation fees will drip, logistics and worldwide supply chains becomes greater operative, and the fee of exchange will reduce, entirely of as a way to launch innovative markets and power financial development. At the identical time, the revolution ought to produce more dissimilarity, particularly in its ability to dislocate exertions marketplaces. As computerization alternates for hard work throughout the whole economy, the internet movement of people via way of means of machineries would possibly make worse on the space among revenues to investment and returns to hard work. On the opposite pointer, it is also viable that the dislocation of people via way of means of generation will, in aggregate, bring about an internet growth in secure and profitable occupations. No one can foresee at this feature which state of affairs is probably to appear, and records indicates that the final results are undoubtedly to be a few mixtures of the two [7].

3. RESEARCH METHODOLOGY

In this research, the technique used is "qualitative research methods" by means of literature review. Qualitative research is defined as the studies that provides descriptive information and data confined withinside the studied manuscript. The information implemented is obtained from "secondary information", referring to the legal guidelines and policies. The studies information series technique is performed via way of means of the documentation technique which denotes to or gathers the documented resources [29].

Even though the information series device used is the research of documentation that may be a observe via way of means of reading information withinside the form of records or books, writings of experts, seminar papers, studies reports, journals, and all legal guidelines and policies referring to investigation material. Research information had been evaluated through the way of means of content material evaluation. Content evaluation is carried out on every secondary information gathered, but content material evaluation is specifically on files in the method of books, legal guidelines and policies and applicable journals [22].

To obtain interpretive translations it is appropriate to use meta synthesis approach, the meta synthesis approach defines the integration and comparison of similarities and different qualitative analysis. This technique is implemented to collaborate various researchers to provide interpretive and comprehensive results by performing translation, synthetization, comparison and translation of various research study framework. Meta synthesis approach is implemented in medical area or sectors and social science sectors. In this research it is implemented in seven different steps such as starting with the collected data, selecting and searching recent researches, analyzing the researches, getting an idea how the researchers are related to, translation of researchers to another, synthetization of translations and performing synthesis [15].

4. RESULTS

Implementation of electronic government in 4th industrial revolution was not easy because of that they faced some of the challenges as follows:

- the culture of sharing data was not available completely
- the documentation was also not considered predominant
- there was deficiency in human resources in the sector of information technology
- expensive and inadequate infrastructure
- information had limited authorized access

But this was the story before implementing electronic government into the fourth industrial revolution, afterwards it changed and started giving better functions, feedbacks and results. After the successful implementation of electronic government, the government and people started experiencing betterment in the services provided by them [28]. People started experiencing telecommunication infrastructure, availability and accessibility of legal instruments and budgets or funds, the difference in paradigm of behavior and functioning of human resources, the stage of connectivity and the usage of information technology by the government was improved, there was a wide increase in human resources in the government, and the needs of the people and the community or the country was given first priority [14].

Table 1. Usage of e-Government in Various Applications.

| Online Presence	Basic Web Technology, Bulletin Boards
Interaction	Electronic data interchange, search engine, email, form download
Transaction	Electronic data interchange, electronic filing system, interoperable technology, public key infrastructure, digital signature, information access, secure communication network
Transformation	New application, new data structure, new standard, new interface
Digital democracy	Public key infrastructure, sophisticated interface and interoperable technologies, chat room

The most crucial factor in Human Resources is the hassle of the shortage of specialists withinside the field of Information Technology that are capable, and there are still many officers withinside the authorities who still stammer generation particularly for the previous technology who still fill in sections governance up to the present time [1].

5. DISCUSSIONS

The noticeable change would create crucial security issues and problems can be increased. When the automation is growing, the workers will be replaced by machineries and computer systems in a wide range of industries, it will be starting from the property agents, insurance agents, accountants and even the drivers. The estimation is, 47 percentage of employees in USA will be endangered due to the arrival of
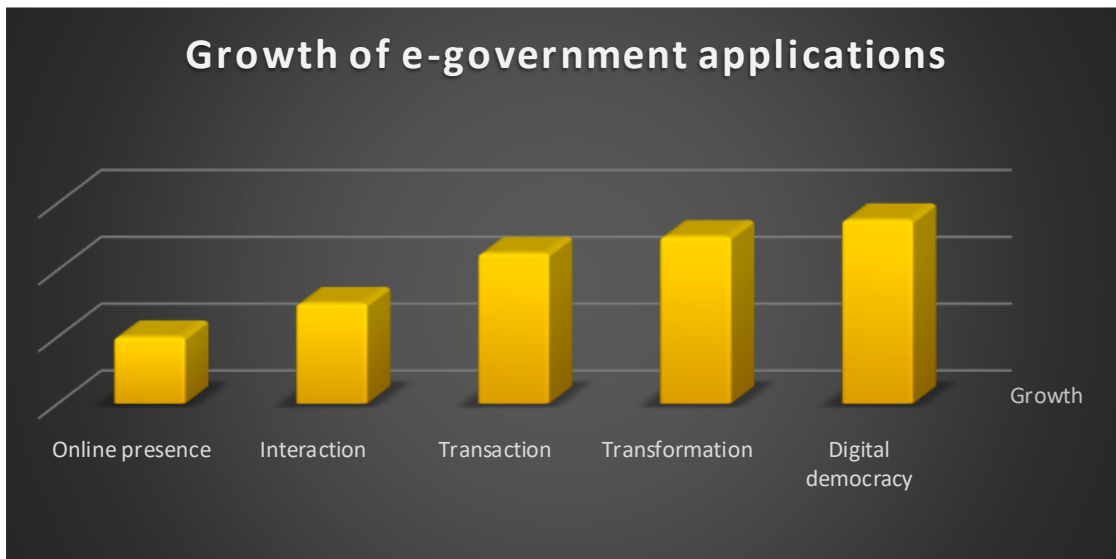
Graph – 1 Complexity of technology.
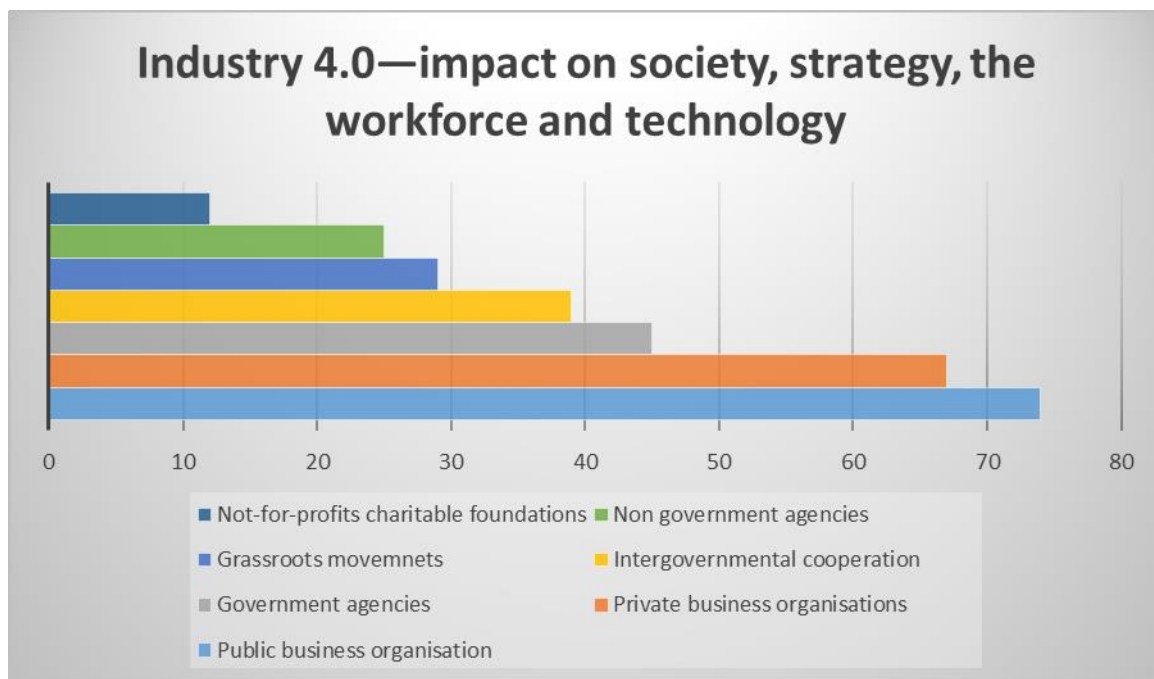
Graph – 2 Impact of fourth industrial revolution on society, strategy, the workforce and technology.

automation. Most of the experts claims that the fourth industrial revolution will bring out the advantage, mainly due to the reduction of low paying jobs, which always requires less quantity of skills because of the reason that search less skilled jobs can be automated by machines [31].

The major stages in the electronic government can be conceded as

- Connected occurrence: The government starts closer to e-government and post beneficial records online.

- Interaction: Government move in addition and citizen can have interaction with authorities through taking forms and mailing to authorities.

- Transaction: In this phase, standard offerings inclusive of payment and tax filling, driving license regeneration are accessible

- Fully incorporated and converted e-government: In this phase, shipping of presidency provisions is redefined through supplying one factor of touch to citizens.

- Digital democracy: Some provisions inclusive of on-line voting, on-line public boards and on-line opinion reviews are presented.

In distinctive nations worldwide, "globalization" has made its modifications to the order of lifestyles. It would possibly finish that it is expectant, as public lifestyles is grown over

thru the development of communication, technology, and information [8]. On the alternative side, knowledge, technological growth, and connectivity motive destructive consequences which could destroy society's viewpoint to a much less effective alignment thru very fast modification [26].

6. CONCLUSION

Transparency and Complexity, and responsibility are a feature of the worldwide state of affairs that step-by-step approachable producers and carrier vendors to reality's gradations. This study concludes the implementation of electronic government on the fourth industrial revolution and its difficulties had been characterized. It is a legendary learning. The advent of neighborhood specialists' web sites is one manner for the authorities to supply to the e-government services. This internet site will offer the authorities with numerous inducements for its cooperative partnerships, performances, and the groups themselves. The internet site could be well-ordered as a manner of aspiring, networking, and socializing. Nevertheless, do now no longer avoid the opportunity of an extra complete feature, including on line transaction purposes, contributing to growing the internet site [16].

Electronic authorities have been identified as a global corporation method to offer citizens' lively communications and participation with efficient, creative, and incredible public provider to attain inexperienced governance. The utility of generation is anticipated to enhance public provider fine, transparency, and duty for authorities' agencies, particularly data generation in authorities. With electronic Government, the Government has in a roundabout way modified the system's operational and improved inner control performance to enhance the fine of public services. The fourth industrial revolution will quickly be confronted with the aid of using all nations withinside the world. The generation of Fourth industrial revolution delivered the result of growing needs for responsibility and transparency of presidency agencies and excessive and rapid responsiveness, this delivered approximately an extrude withinside the organizational layout paradigm. Therefore, authorities' agencies have to perform principal reforms if one want to correctly perform their obligations and capabilities withinside the present-day generation of the Fourth industrial revolution. The fourth industrial revolution now no longer best brings wonderful advantages however additionally challenges [21].

7. FUTURE WORKS

One of the best areas to experience betterment of 4th industrial revolution is at the workplace. As a comparison to the previous industrial revolution the fourth industrial revolution can be coined proudly with its extraordinary features. The fourth industrial revolution helped many employees in reducing their stress in doing less skills required jobs with less pay [11]. This problem can be solved completely. With the implantation of industrial revolution technologies there comes the arrival of new types of jobs. Technologies and strategic business are automated using computers and machine learning algorithms, this had a great effect on the robots which needs human integration in very less quantity. The fourth industrial revolution recreate the future of work, the business and people are preparing for the better world of the future.

This eventually means people and employees started giving focus on conceptual learning, expertise knowledge, committing different type of job. The electronic government is developing widely around the globe with constant learning and training in the sector of information technology as the establishment of trained human employees [6].

In the future of e-government of Saudi Arabia, the implementation of fourth industrial revolution can bring changes as follows:

- Forming consistent free enterprise management
- Establishment of religious education
- Fourth industrial revolution based on moral revolution
- Development of work ethic and good behavior in HR department of the government
- Availability and infrastructure of satisfactory access media
- Altering the gadget attitude into a disruptive gadget attitude

All these features and factors can be obtained depending upon the performance of the current government., technology, employees, people's knowledge, services, gadgets, various platforms and so on.

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