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IMPLEMENTATION OF AUTOMATION IN APPLICATIONS OF HEALTHCARE, PRIVATE, AND PUBLIC SECTORS IN IT

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ABSTRACT
The paper will examine the implementation of the new technology in the automation of the healthcare, private, and public sectors. The latest technological advancements tend to alter the modes of the normal behavior of different segments of life among the listed ones in their entire process and responsibly affect their operation. The technology sheds light on specific areas requiring adequate and superb services and offers obscure methods in the field of automation. In doing so, the credibility and accountability of the entire systems that are put in place are enhanced. To investigate how the automation of the application areas is influenced by IT regarding the equation of accountability, a range of documentations that are empirically implemented in the field of IT are explored. The exploration ranges from the purest forms of transactions that involve the automation of lower levels to the highly automated systems, which includes the technologies that analyze biometric fingerprints, among others. From the example, the accountable potential of the IT automation is discussed for the different applications with the hope of investigating the benefits that are brought about by the automation of the applications while doing away with the potentials that are unaccountable and hinders the functionality that may come from the usage of the systems applications on the different fields. Throughout the paper, much stress is on the importance of developing a balance that exists between the benefits of the automated applications in IT and the entire process of automation, including the system that may tend to reduce the efficiency of the applications and be able to bring up accountability.

KEYWORDS: Information Technology (IT), Automation, Accountability, Public sector, Private sector, Healthcare sector

INTRODUCTION
The healthcare, private, and public sectors applications are the structural systems for processing information, storing the data, and manipulating the data stored in the storage devices at their activities heart. The processing of data has a core role in the operation of the applications. It is vital to know why ICTs are referred to as "bringing efficient, effective, transparent, and accountable outcomes to the applied sectors" (Noble, 2017). The technology helps in eradicating corruption, improve the provision of services, and provide utmost accuracy. Within the sectors, the introduction of technology advancement can create an effect that is significant in their practices that involves the efficiency and benefits technically (Bichler et al., 2018). In doing so, the issues that are often discovered on matters accountability will be resolved. The United States government has presumed the benefits of technology in the sectors and is being automated daily with researchers rooted in bringing technology to at its level best (Manyika, 2017).
The paper will examine the implementation of the IT automation in the sectors of healthcare, private, and public sectors of life to create a reflection of the IT interaction with the sectors' accountability. Specifically, the paper will analyze the problematic areas without dismissing the benefits that are positive and potential in the automation field (Lazarus et al., 2018). It will also uncover how the advanced technology in the sectors will affect the models that are conventional on matters behavior that will then impact on the considerably accountable arrangements (Isa & Sklavos, 2017). It offers the IT staff an opportunity to examine the infrastructure for IT from a perspective of the business. The analysis will indicate how the technologies do not only focus on accountability but also shift on the responsibility of the technologies in delivering enhanced functions that are simultaneously achieving the stipulated goal (Furman, 2018). The automation of the sectors in IT will be significantly improved in the future if the interventions are made on the areas to automate. The paper also aims at the developmental contribution of the general framework

that developers may consider in the automation of healthcare sectors, private and public sectors in IT.

LITERATURE REVIEW

The use of technology has increased in recent days in many sectors of life. It is, therefore, clear that technology has changed the performance and operation of the healthcare, public, and private sectors. The use of smart technology has been implemented in the public and private sectors to advance their systems (Bermejo et al., 2018). HR and security have also adopted the use of intelligent technology. The smart technology transforms the industry of healthcare by changing how services are provided and the operations that are within the industry in a very different aspect (Parasuraman & Mouloua, 2018). The automation of IT improves both productivity and efficiency. For example, people use smartphones as a device that is technological in every sector and can access applications through the technology to perform different tasks like hotel booking, utility payments, and others, which tends to make life easier. Therefore the automation of these sectors is replacing the styles of living that were old fashioned by reducing the consumption of time and energy (Kurfess, 2018).

Automation in the application for the healthcare sector in IT

As the IT infrastructure for healthcare is growing and becoming complex, which includes the automation of the system for management, it reduced the resources that could have, in turn, be wasted and improve the ROI. The organizations for healthcare rely more on the support that is given by the technology to clinicians and patients (Bichler et al., 2018). When the infrastructure for IT becomes automated, it will develop a strategy that is valuable for reducing the wastage of time and improve on the performance. The system for IT infrastructure can apply automation on orders such as monitoring network, and recovery of data (Scheepers et al., 2018). Both of them are considered being highly intensive data for the systems to function optimally without requiring any technological assistance. The benefits that are significant in the automation is the time reducing and generation of insights that are actionable to the performance of the infrastructure of IT (Arntz et al., 2017). Automation also offers visible and easily controlled resources.

Why automation is required in healthcare

The transformation to digital is mainstream for the healthcare sector. As the patient's experience is being advanced and improved on the services offered by the provider organization, it becomes a focus to automate the technology used (Pang et al., 2018). The healthcare quality has been advanced since science has been advance by the automation. It is, therefore, a clear concept that automation is a part that is crucial to deliver better healthcare services (Li et al., 2017). Automation has also surpassed many facets, including the ability to store a record of health that is historical, provision of a history of health electronically. It can be shared in different environments hence boosting the service delivery of the patient and the hospital itself (Eubanks, 2018).

Automation case can be broken into the perspective of the innovative and convenient of the staffs of IT who works every day with the tools for IT infrastructure and directly, and the executives of the standpoint of business whose work is to save money and time by cutting back on the costs of the service delivery to the patients (Abu-Shanab & Estatiya, 2017). When the infrastructure for technology is regarded as evolving, it means that the improvement of the network is required to be done continuously. The reality that exists in healthcare is that your system should not be left to chance (Pang et al., 2018). Therefore, the workforce is needed, and this is why the organizations of healthcare have typically larger staff for IT than any other organization. To run and debug all the tasks for maintenance purposes seems time intensive and also intensive on humans; therefore, machines are deployed to perform the functions that do not require staff to work on (Manyika, 2017).

Some of the relatively larger health systems are capable of developing their programs for automation because they have readily available developers and the capital required to pay for the project. The small healthcare systems might not be able to pay the required developers as their staff and ends up acquiring the programs from vendors that offer solutions for automation that is better (Northcote & Wilson, 2017). When looking forward to replacing the legacy systems, one can opt to integrate automation in the infrastructure of IT, which can help in making the right decisions. Systems can also be replaced quickly and become

automated by seeking clarifications from the IT staff, which includes the replacement of a network management system (Acemoglu & Restrepo, 2018). The collected data by the network management that is automated can offer decisive advice by providing insight into the system needs and hence indicating what needs to be replaced to enhance the IT infrastructure (Kurfess, 2018). Therefore, it gives the IT staff more time to grow the network and focus on the tasks that are of more importance, which includes tools that are advanced and digitalized in the improvement of the clinical and patient experience.

With technology advancing, procedures are now becoming cheaper. Advanced telemedicine is made possible today by the automation. Telemedicine entails the provision of healthcare services to patients who are in remote areas utilizing electronic technology (Pang et al., 2018). The concept has gained fast momentum in recent years due to advanced technology. The industry for health has announced a reduction in costs and increased efficiency, which are the topmost priorities of finance in the industry (Salomons, 2018). Therefore, automation has presented itself as a strategy that is essential for performance improvement. This is the reason why telemedicine has been able to take roots that are strong as an alternative for the process of drudged hospitalizing and the development of applications that will create telehealth at its utmost quality (Furman, 2018).

Automation in the application for the Private sector in IT

Private sectors have now implemented the automation services in their companies, which helps them reduce the costs for operation, improve on service offering, increase the speed of work, and reduce the tasks that were done manually and throughout the entire process. According to Manyika (2017), for instance, a company leading in oil production has now been able to cut off four days from the initial process of financing closure through the automation of tasks that exceed 10 000. Therefore, most governments have taken note of the companies' approach to the automation of their systems and the benefits it has on the company (Bermejo et al., 2018). Some private firms have adopted the process design of lean that focuses on waste minimization and value maximization. They implement the use of robots and machine learning that helps in pushing automation to adopt in the new activities (Fernandez, 2018). Many of them required human labor to handle them manually. The table below indicates the routing necessary for a home applications automation:

Use	Requirement
Applications of Lighting actions	Scalable, Supports mobility
Conserving energy and optimizing the consumption of energy	Routing that is constraints based
Remote control moving	Supports mobility, Converge time
Adding a module that is new to a system	Converge time, Easy to manage
Healthcare	Supports mobility, Constraints based, Converge time
System for Alarm	Scalable, Converge time

Processes that involve procurement and purchasing through orders have now been automated to function throughout the clock and has cut off the cost for the manual approach into a third (Isa & Sklavos, 2017). The activities for administration have become a focus for the private sectors that accounts for employment of about a quarter from the industry of the public, which suggests that efficiency can be made by governments and improve significantly on the productivity in the area (Nedelkoska & Quintini, 2018). Automation develops an accurate, consistent, scalable, and traceable process. The effects that may be brought to the government will be an improved way of offering services to its citizens, in a transparent way, and provision of data that is consistent and enable in analyzing crime prevention tasks (Milakis et al., 2017). Also, automation can boost the satisfaction of the employee on some tasks that are repetitive and

manual, which is considered as being the most dissatisfying job.

Automation in the application for the public sector in IT

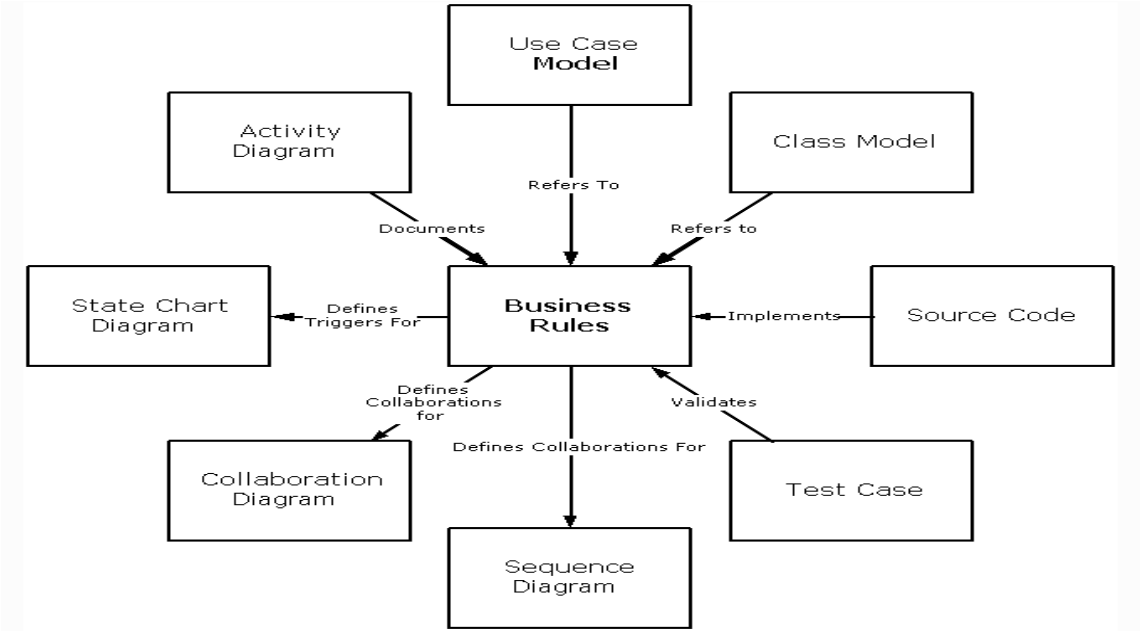
In the fields of finance, Human Resource, and procurement, above 70% of the tasks are automated. It creates a potential for savings that are stipulated for long terms. It means that the implementation for after-accounting and the ongoing software costs are saved for at least 40% (Heeks, 2017). Automation in this sector has already started to significant benefits that can be proven. Particularly in the United States, it allows administrations to offer quality services to their citizens, reducing the costs for operations. As in the private sectors, the adoption of technology and digital transformation in the public sector decreases the expenses that could have been spent in manual works and has created better outcomes (Eubanks, 2018). In particular, automation can help the governments be able to improve on their productivity and scale, which will, in turn, improve the satisfaction of its citizens. In the public sector, the development of automation is considered to be at its infancy relative to its potentials (Milakis et al., 2017). Therefore, this means that to achieve the automations' full potential, it requires investments to be significant, adequate time, and the focus on management as the tools that are key for success.

Automation can further be categorized into three. The first category is the physical one, which involves the lines for assembling, the drones, and the drivelines used by vehicles. The second category is the digital one that entails the software and the entire process of automation (Abu-Shanab et al., 2017). The last type is the combination of both the physical and the digital categories. The automation of the first wave has delivered much productivity that is beneficial for many years in the tasks that are relatively high structured and the environments that are predictable that may include the robotics in the factories that assemble cars, and the process of scrapping data and aggregating on the internet. In the short term, the process of robotic automation can deliver the most significant benefits in the public sector (Fernandez, 2018). The RPA implements the use of robotic software to handle tasks using tools that human workers use. By watching humans performing duties, the robots get to learn and also does trial and errors as it tries to work on their own (Lazarus et al., 2018). When combined with the processors for natural language, robots can also perform interactions with the consumer hence improving after every conversation.

Launching the program of digital transformation in the public sector

Research done in 2017 evaluated the change to digital forms in the US and the local government. The study concluded that a digital gap that is major still exists on the services offered currently to the public and how the services can be delivered in a public sector that is digital, modern and capable of highlighting the barriers that are major and help overcome them before achieving the targeted savings in the services that are delivered online (Heeks, 2017). After some delays, the US government unveiled the strategy for the government transformation for the year 2017-2020 and its digital strategy to transform the services of the public into a digital economy (Noble, 2017). The two approaches were announced as a way of restoring trust in how the government works with its citizens, including the democratic levels, and to come up with a digitalized economy that works to meet everyone's needs (Kurfess, 2018).

This cannot be easily transformed to become a reality, but some fundamental principles must be put in place to cope with the digitization of the public sector. The policy considered is that the transformation to digital aims in the redesigning and re-engineering the government's services, and the needs should be done starting from the low levels up if the requirements for changing the user needs are to be fulfilled (Abu-Shanab et al., 2017). The problem is that no one wants to become the first to implement the strategies, and they all want to learn from others. It is because the sector of the public is considered as averting many risks. After all, it involves the lives of people when dangers are taken (Lazarus et al., 2018). Therefore, it consists of taking care of the vulnerable people and the victims that may be associated with the digitization process.



The scope of automation in healthcare, private and public sectors in IT

The scope for automation of IT in the healthcare, private and public sectors are boundless. It ranges starting with the most straightforward single actions and sequences that are discrete up to the deployment of autonomous IT that is capable of monitoring the behaviors of the users and specific events to partake in the actions that are needed by the user (Heeks, 2017). Recently, automated systems tend to accomplish every task since the artificial intelligence system was extended to computerized systems (Fernandez, 2018). Indeed, they are capable of outdoing humans in almost all the fields that can be thought of and implemented on. Also, automation can be extended to partake the tasks that are seemingly beyond the capabilities of the human domain on information technology management (Noble, 2017). The area is currently changing towards the best, and an entirely new face is recognized in the automated systems, which are becoming better and more intelligent.

The United States, for instance, has adopted the use of the most expensive systems of healthcare in the world. The technological advancement in every sector of life in the nation has led its people to assume that the policies are perfect due to the automation (Manyika, 2017). On other terms, people also believe that a better life will be experienced when the systems in the sectors are more expensive. This has not been the case because the system for healthcare, on the contrary, has until now not incorporated the integration process of automation in the fields of computer production and automobile systems (Parasuraman & Mouloua, 2018). The industries are pushing accelerated charges due to the innovations and the demands of the consumer to have an engaging and experience that is connected. Due to automation, changes have made certain forms of life easily accessible and efficient hence becoming relatively cheaper (Acemoglu & Restrepo, 2018). In recent days, the advanced gadgets, the internet has the highest speed, and valuable tools have become services that are integrated and used in hospitals, private, and public centers.

The net diagram above indicates how a transaction that is logic can be recorded behind the models of UML objects. The diagram displays some of the relationship that exists between the rules of business and generic views of UML in an automated system (Mohammad, 2019).

Advantages of automation in the application for healthcare, private and public sectors in IT

The most significant accomplishment of automation is that it has reduced the production cost. It has become possible because human labor is now replaced with automated machines and robotics (Northcote & Wilson, 2017). Though the initial process of installation of the equipment is relatively expensive, when they are implemented, automation can reduce the production cost significantly in the long run by replacing the place of human beings operating manually or the workers whose wages and pay are always higher than the cost of maintaining and operating the machines and robots (Eubanks, 2018). For instance, in Australia, only 15% of robots are deployed in the car industry, and the rest implemented in other sectors in which

they result in rapid falling of costs (Shladover, 2018).

Automation makes services reliable and of higher quality. Automation has made this become possible in the avenue of the inspection of the parts that are presented to them and the tasting of the various steps of production (Li et al., 2017). An automated sound system deploys a process of testing internally to assess the product quality before sending it to the stage that follows hence rejecting the ones that have defects. Automation also partakes the verification of the positioning and presence of each part of the assembled system (Milakis et al., 2017). Inspecting parts at the different stages of production and the confirmation of the processes internally and the ability to accomplish the tasks will otherwise have been difficult and cumbersome to be undertaken manually; hence it makes the process of automation seemingly reliable (Kurfess, 2018).

Production has been achieved to its highest level due to automation. The systems that are automated operate faster in both the manufacturing and conveying of products from one stage to another in the process of production (Noble, 2017). This indicates that the volume of production will be increased every hour. The amount increases because, as opposed to humans, the automated systems do not experience boredom and exhaustion since they can work for hours, including also during the nights and weekends where human labor would sound difficult (Nedelkoska & Quintini, 2018). Once the system is set to operate, a sound system that is automated increases the production in terms of production rate and time extension for the operations to hours in which humans could have demanded resting (Manyika, 2017).

Reduction of accidents that can cause injuries to the workers and even cause the death of the workers has been achieved considerably by the use of systems that are automated in the plants for manufacturing. According to Shladover (2018), Accidents have been reduced in two ways. That is, humans are replaced with machines, and workers have been able to now work at a safer distance. With the implementation of robots and automated systems, humans are now subjected to safe working environments like in the melting of steel is now done by robots hence minimizing the risks of human life being involved in manual works that are risky (Arntz et al., 2017). Some facilities that are dangerous to human beings that includes the plants for nuclear power can now be operated at a safer distance with the use of computers (Scheepers et al., 2018). Limitations of deaths and injuries have far been achieved in an unforeseen event.

Disadvantages of automation in the application for healthcare, private and public sectors in IT

Unemployment has been contributed by automation. The jobs that were previously done by humans are now taken over by machines that are automated and robots (Fernandez & Aman, 2018). With technology advancing continuously, robots and computers are now capable of carrying out more complex tasks. It, therefore, means that human labor is continually being replaced (Furman, 2018). It results in more people having replacements and leading to fewer opportunities in the labor market. Additionally, it is not easy to predict precisely the technology trajectory's hence making it difficult to decide the skills that are not going to become automated, thus creating uncertainties on the employment when one graduates (Lazarus et al., 2018).

The initial costs for setting up the automated systems are very high compared to the unit costs of the product. The price seems much higher to the firms that are entering the production face or the ones launching a product that is new to the company (Salomons, 2018). It, therefore, requires an enormous investment in the capital.

The cost of automation poses a more significant effect on the implementation of automated technology. It means that there exists a limit to the speed and the extent of automation, as the progress of automation has become a function for the economics and technology sectors (Isa & Sklavos, 2017). By using the currently available technology, specific tasks of production are difficult to automate, and the solutions to them seem logically impossible in terms of the technology required to automate them (Tabor et al., 2018). The aspect of the economy on the automation limitations is attributed to the situations that it becomes costly to automate the tasks than to have them perform in an old-fashioned way (Bermejo et al., 2018). Therefore, it means that the full benefits attached to automation are not thoroughly fully enjoyed due to these factors.

DISCUSSION

The products of automation in the fields of healthcare, private and public sectors in IT have utilized mostly automotive where they are implemented in the processes of machining and enhancing press working. Most of the private sectors implement the use of machinery and the components of the motor in the shaping of the products to the shapes that are desired (Fernandez, 2018). In many cases, several operations are incorporated to perform a specific task and come out with the desired output on automation. If the field of technology produces a mass of the products, a transfer line that is automated is considered as the most economical method in the field of production (Salomons, 2018). Press working involves the formation of parts from a metal sheet in the private sectors. Sequences of machines are deployed in the process (Lazarus et al., 2018). Today, many industries have implemented the use of computers in controlling the processes that are complex in the field of IT.

Automation is also considered being a technology that saves on labor. It means that the technology involved requires minimal assistance from humans (Fernandez & Aman, 2018). Automation ranges in different fields when applied to healthcare, public and private sectors of life. It also controls the complexity of the affected areas ranging from the more straightforward controls, like the on-off mode, to a higher level of algorithms in the system that are multivariable (Manyika, 2017). In the simple type of automation control, the controller is capable of comparing the values that are measured on a specific process to a set amount that is desired. The method also performs the processing of any resulting error signals to alter the input of the task (Arntz et al., 2017). In this way, the process is capable of staying put despite any interference. According to Northcote and Wilson (2017), Automation in these sectors of life has been achieved in different ways such as the mechanical in the private sectors, electronics and electrical devices in the healthcare sector, and the hydraulic in the public areas and which sometimes works together in enhancing the efficiency of IT.

Losing jobs and the mobility going downwards due to automation has been one of the many factors in the nationalists' and protectionists' resurgence in the United States and many other countries. It is because it has created a minimal intervention of humans to control and manage the facilities that are large and many such as the healthcare system (Nedelkoska & Quintini, 2018). It, therefore, seems that the automation of technology in these sectors leads to more potential and dynamic areas when they rely on technology to produce the outputs that are acceptable and complete procedures in a desired way (Kurfess, 2018). As human input decreases, the responsibility attribution becomes more difficult since the decision points are taken away from social interventions (Acemoglu & Restrepo, 2018). Dysfunctions are also eliminated from the systems when IT is automated hence increasing the efficiency and accountability of the arrangements.

CONCLUSION

To understand the automation of IT in the healthcare, private, and public sectors, we need to improve on our theoretical understanding of how the implementations of IT automation interacts with the arrangements that are accountable in the industries. The framework of a proposed IT automation in the industries is the first step in conceptualizing the potential outcomes that may be negative and associated with IT in the sectors. Exploring the additional cases of automation in the healthcare, public, and private sector helps in refining the framework for the understanding of automation accountability and efficiency. Improvements in the flow of information and the automated process produce efficiency that is much coveted and transparency that should be in balance with the automation dysfunctions.

As the paper has illustrated, the implementation of automation in healthcare, public, and private sectors of life requires different types of mechanisms that are accountable, and that is based on the evaluation that is carefully done on the effects that will arise when the technology is implemented on a particular context. The mechanism is established on a central scheme of a question that is posed on the actions that should be held accountable in the automation and the levels of responsible arrangements on the implementation. The examples listed on the paper have indicated that different services are required in the various sectors to enhance an accountable process. The raised concerns on the pervasive increase in the automation of IT on the healthcare, public, and private sectors are always faced with the promise of an increasing technology that is intelligent. As in the United States, they are capable of operating on the areas without continuously having a human to direct the operations. It indicates the appealing feature that the automation of IT on the

systems regulated by computers performs more complicated and dangerous tasks and requires time to control critically.

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