UNIVERSITY OF NAIROBI

FACULTY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATICS

AN ASSESSMENT OF THE ADOPTION OF ROBOTIC PROCESS AUTOMATION IN KENYAN INSURANCE COMPANIES

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A project report submitted in partial fulfillment of the requirements of the degree of Master of Science in Information Technology Management of the University of Nairobi.

ABSTRACT

Among the technologies perceived as providing great opportunities to scale and transform traditional work paradigms in the digital age is Robotic Process Automation (RPA). Iinsurers are looking at ways of increasing their operational digital footprint and optimizing their business process automation. Insurers handle a high volume of processes manually which creates delays and affects customer satisfaction and profitability. Insurance can take advantage of RPA to handle the high volume, structured and repetitive processes. Although RPA provides numerous benefits, it has not yet achieved conventional adoption. Organizations are still gathering information and creating a business case for RPA implementation. The adoption of RPA has not progressed hence the need to investigate the factors relevant to insurers when making technology adoption decisions. As RPA-related innovations are one of the recent disruptive forces, there is interest for businesses to understand what drives such decisions to facilitate the uptake of RPA technology. The study sought to assess the adoption of RPA in insurance companies in Kenya, identify the opportunities for RPA adoption, establish the factors to be taken into account to stimulate the uptake of RPA, and validate a suitable model for RPA adoption. The Technological, Organizational, and Environmental (TOE) framework was used as the conceptual parameter. A descriptive survey was used where quantitative data was collected using questionnaires. Data was collected from twenty-six life insurance companies licensed by Insurance Regulatory Authority (IRA) and statistically analyzed using SPSS. Nearly all the respondents agreed they perform manual and repetitive tasks in their daily operations. The technical capabilities of the RPA are seen to improve operational efficiency and improve the quality of work produced. The study revealed that many insurers in Kenya are still at the stage of deciding to adopt RPA. This research found clear links between the three elements of the TOE framework and RPA adoption decisions. The model analysis validated the relationship between Technological factors, Organization Factors, and Environmental factors significantly influencing the respondent's intention to adopt RPA. The findings show that relative advantage, compatibility, top management support, competitive pressure, and legal & regulatory requirements are positively related to the intention to adopt RPA with a negative relationship established between perceived costs and intention to adopt RPA.

DECLARATION

This research project report is my original work and to the best of my knowledge has not been submitted for any other award at any university.

Ruth Wangui Mbiu

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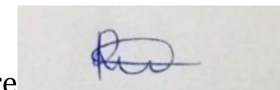
Signature  Date 08/08/2022

This research project report has been submitted for examination in partial fulfillment of the requirements for the Master of Science in Information Technology Management of the University of Nairobi with my approval as the university supervisor.

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DEDICATION

This thesis is dedicated to my partner and support system, Allan Gathuru, who inspired me to take up this journey and has been a constant source of support and encouragement.

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ABBREVIATIONS

AI	Artificial Intelligence
API	Application Programming Interface
BPM	Business Process Management
CIO	Chief Information Officer
COVID-19	Coronavirus disease of 2019
DOI	Diffusion of Innovation Theory
GDP	Gross Domestic Product
ICT	Information and Communication Technology
IEEE	Institute of Electrical and Electronics Engineers
IRPAAI	Institute of Robotic Process Automation and Artificial Intelligence
IT	Information Technology
KYC	Know Your Customer
RPA	Robotic Process Automation
TAM	Technology Adoption Model
TOE	Technology Organization Environment Framework
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
UTAUT	Unified Theory of Acceptance and Use of Technology

DEFINITION OF TERMS

Acceptance – It is the adaptation process and a system that is claimed to be due to different variables by the user of new technology (Binbasioglu, 2020).

Adoption - Process through which an individual or other decision-making unit passes from first knowledge of an innovation to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea, and confirmation of this decision (Rodgers, 2003).

Automation - Creation, and application of technologies to produce and deliver goods and services with minimal human intervention with systems that operate autonomously, often in structured environments over extended periods (Goldberg, 2011).

Business Process Management - A discipline of improving a business process from end to end by analyzing it, modeling how it works in different scenarios, executing improvements, monitoring the improved process, and continually optimizing it (Cewe et al., 2017).

Robot - Any machine replacing work performed by humans while gathering information and following instructions to execute tasks (Tirgul & Naik, 2016).

Software Robotics – It is the use of bot programs to automate computer tasks normally performed by people by perceiving the surrounding, executing computations to make decisions, and acting in the real world in ways that humans would normally do (Willcocks & Lacity, 2016).

Robotic Process Automation - Refers to software that uses business rules and action sequences to complete the independent execution of processes, transactions, procedures, and tasks in at least one system to generate results with human exception (Moffitt, 2018).

1 INTRODUCTION

1.1 Background of the Study

Robotic Process Automation (RPA) continues to draw corporate attention to the digital transformation that is progressing continuously. Organizations need to seize the benefits of digital technologies which are reshaping business operations in every industry. Firms require to automate their business processes to remain competitive in this digital era (Uskenbayeva et al., 2019). There is a need to provide higher quality operations to remain competitive, create value, increase productivity and react to customer needs. Productivity enhancement and continuous process improvement are the key drivers of automation for organizations (Lakshmi et al., 2019). RPA enables software to operate in the absence of human intervention (Lakshmi et al., 2019).

The insurance sector is undergoing a digital transformation process (Saukkonen et al., 2020). One of the key areas of focus is recognizing and accelerating the use of emerging technologies for more efficient and effective business processes. RPA is one of the technologies perceived as providing great opportunities for scaling and transforming traditional work paradigms. RPA technology can be integrated with existing software programs and is the virtual workforce minimizing human intervention (Rai et al., 2019).

Intelligent automation converts how business is administered in every sector of the economy and the insurance industry is no exception. There are complex IT environments with multiple systems and data sources that are not well connected, which requires manual effort to make the processes work for strategic decision-making (Rai et al., 2019). Insurance involves various processes to administer existing policies, policy pricing, renew policies, new business onboarding, process claims, and handle customer inquiries. Process automation is taking the world by storm by reducing human error, and improving accuracy, quality, and speed of operations (Khan, 2018).

RPA brings immense gain in productivity and quality of business processes. In comparison with solutions like Case Management, Business Process Management (BPM), or workflows, RPA alleviates process automation (Kumar, 2020). Data interpretation, actions initiation, interaction with information systems are some of the functions RPA can execute. However, the software robot can perform these tasks in perpetuity, with remarkable speeds and flawless execution. Navigation through multiple interfaces is eliminated for employees. They can then focus on value addition and tasks that do not fall within the systematic and repetitive framework.

According to the IEEE Standards Association, RPA is a software which utilizes rules and action sequences to independently execute processes, transactions, procedures, and tasks to generate results with human exception (Khan, 2018). RPA gained popularity in 2014 when firms registered significant savings due to automation. There was more market uptake in RPA in the back office by 2016 (Willcocks & Lacity, 2016). RPA advancement does not call for trading off legacy IT systems (IRPAAI, 2019). RPA can be integrated with existing software programs to eliminate human intervention in business models. RPA gathers data from other data sources, internal and external, and performs faster risk assessment with greater levels of accuracy (Devarajan, 2018).

Optimizing business processes is being sought by insurers to increase their digital footprint and connectivity. In particular, the 'new normal' introduced by COVID-19 creates the opportune time to consider embedding automation in the business. Automation of processes can be done without disrupting the underlying infrastructure and systems. However, organizations need to comprehend their procedures in the back office and establish certain tasks to be automated (Devarajan, 2018). This will accelerate back-office activities in different sections such as finance, customer service, and human resource to perform the routine tasks.

1.2 Statement of the Problem

Insurers regularly handle an exceptionally high volume of structured, deterministic, and repetitive business processes which creates a delay in processes (Aguirre & Rodriguez, 2017). Being an innovative technology, RPA has the potential to enhance efficiency in organizations through the automation of business functions (Willcocks & Lacity, 2016). RPA can deliver benefits such as increased productivity with minimal process change, improved compliance, faster turnaround times, higher quality with attractive payback periods, and freeing employees from tedious and repetitive tasks (Leshob et al., 2018). The use of legacy information systems creates a gap in system integration, creating a need for human intervention to fill the gaps often with tasks that are mundane but necessary.

RPA has not yet attained conventional adoption (Wanner et al., 2019). A study by Deloitte reports that the adoption of RPA at scale has not progressed (Wright et al., 2018). There is an interest for businesses to understand what drives such decisions in organizations as RPA is among the recent disruptive technologies (Gartner, 2017; Davenport & Ronanki, 2018). Many organizations are at the stage of gathering information on RPA adoption (Anagnoste, 2018). Insurance companies are looking at how to create a business case, and gather the required skills needed to implement RPA solutions (Lamberton, 2017). This creates a need to investigate the elements relevant to insurers when making decisions to invest in RPA technology and the opportunities for RPA in the insurance companies.

1.3 Purpose of the Study

Investigating the elements that influence the decisions organizations make in favor of RPA adoption is the main objective of this study. The study used a TOE-based framework to demystify the factors that organizations find important in the readiness to adopt RPA.

1.4 Objectives

1. To determine the opportunities of embracing RPA in insurance companies.
2. To investigate factors that influence the decision to adopt RPA in insurance companies.
3. To identify a model suitable for predicting the adoption of RPA by insurance companies.
4. To validate the proposed model.

1.5 Research Questions

1. What are the opportunities in insurance for embracing RPA?
2. What elements influence the decision to uptake RPA in insurance?
3. What model is suitable for predicting the decision to adopt RPA by insurance companies?
4. How suitable is the identified model for the study population?

1.6 Scope of the Study

The study concentrated on twenty-six life insurance companies in Kenya licensed by the Insurance Regulation Authority (IRA).

1.7 Assumptions and Limitations of the Study

An assumption that participants will answer questions honestly and have a sincere interest in participating in this study is made. Some respondents may not be truthful in their responses or may find it difficult to disclose some information. The TOE-based model shut out other factors with the potential to influence the RPA adoption decision. The study adopted a convenience sampling technique which may limit the generalization of the results hence the results can only apply to the participants in this research.

2 LITERATURE REVIEW

2.1 The Kenyan Insurance Industry

The insurance sector in Kenya is a financial intermediary contributing greatly to the realization of the Kenya Vision 2030 to accomplish an average growth rate of 10 percent per annum in the Gross Domestic Product (GDP) (Mwenzwa & Misati, 2014). Automation increases business capacity, speed of services, and risk analysis capability in the business area. Further, it helps to remodel business procedures and deliver the best insurance services electronically (Salatin et al., 2014).

As the insurance industry receives huge spikes in customer contacts on health cover, inquiries, critical illness, and travel insurance, insurers risk losing clients to more digitally enabled competitors. Changing lifestyles and higher participation in insurance programs lead to more claims. A lot of time is wasted dealing with repetitive procedures resulting in human error, lower morale and increased operational costs (Sterling et al., 2020). Customers are reluctant to buy slow-moving services. Lengthy, time-consuming processes can lead to dissatisfaction and a decrease in sales policy (Madhavi & Aparajita, 2020).

Insurance processes like underwriting risks, policy pricing, sales, claims processing, customer interaction, and customer onboarding can benefit from RPA. Time is wasted on paperwork to complete the process. Underwriters need to scan through the documents to determine the risk associated with a customer and decide if the application should be processed further (Wuppermann, 2016). Later, premiums are then calculated (Prince, 2016). Keeping in touch with the customer is essential to increasing sales, though it is the customer's responsibility to pay premiums on time and recall renewal dates.

2.2 Adoption of Technology in the Insurance Industry

Dependence on manual systems creates a platform for fraud to thrive. The insurance sector has been conservative in the adoption of emerging technologies (Mulaki & Muchiri, 2019). IRA continuously advocates for embracing innovation to improve performance (AKI, 2011). However, some companies have adopted features to counter competition from other industry players. Utilizing Artificial Intelligence, robots, chatbots, big data, and the Internet of Things greatly impacts customer service delivery. This leads to greater competitive advantage, efficiency, and a raise in revenue.

Automation can enhance report generation, collection of documents from various sources, processing documents such as classifying and prioritizing, extracting information from these documents, information validation against business rules, and populating systems with the data. McKinsey sees the second wave of automation for software bots to execute 10% to 15% of activities across different functions, which will in turn enhance capacity and allow the workforce to work on higher-level tasks (Wil et al., 2018).

2.3 Robotic Process Automation Overview

Among the technologies transforming business processes globally, RPA is one of the major trends that saves time, improves productivity, cuts down cost, reduces errors, and improves customer satisfaction. Gartner had predicted that 90% of firms would have taken up RPA by 2021 to digitally transform critical business processes through resilience and scalability. Gartner anticipates growth in RPA demand and consistent push by service providers to clients due to the impact of COVID 19 (Wil et al., 2018).

The Institute for Robotic Process Automation and Artificial Intelligence (IRPAAI) describes RPA as a technology that enables the configuration of software robots to capture and understand legacy IT systems for handling transactions, generating responses, operating data, and communication with other advanced frameworks (IRPAAI, 2019). It is the technical emulation of a human worker to attain a cost-effective and efficient way of carrying out structured tasks (Slaby & Fersht, 2012).

The software robots are trained algorithms operating on the user interface mimicking a human worker (Wil et al., 2018). As opposed to legacy IT automation systems, it is a good candidate for almost any task as it can adjust to different circumstances and conditions. They similarly handle the system like a human would, with comparable access rights. Organizations can implement the change competently without changing the underlying infrastructure and procedures.

Organizations can computerize routine business procedures, empowering users to dedicate their time and attention to value-add tasks. Recent years have seen an increment in the uptake of RPA for back office and administration tasks and business process outsourcing (Willcocks & Lacity, 2016). There is an increasing necessity in organizations for regulatory enforcement, cost competence, competitive advantage, and high-quality knowledge (Theyssens, 2017). RPA paves the way to handle these requirements which reduces labor costs and improves speed, precision, and quality (Theyssens, 2017).

In business practices, RPA creates software to execute tasks performed by individuals such as integrating information from various input sources like email, spreadsheets, and systems (Willcocks & Lacity, 2016). The RPA framework enables organizations to design a software robot that captures and infers operating and data handling systems, trigger responses, and communicates with other systems. (Rutaganda et al., 2017).

2.3.1 Characterization of RPA

Seven key robotic skills explain what RPA does. Gather and collate information; validate; record; calculate; produce, orchestrate; transport, connect and report. (Sonya & Rotistsa, 2018). RPA has three main applications: unattended mode attended mode and hybrid mode. The software robot interacts with these applications and systems as a human employee would.

An unattended mode is the traditional RPA executing repetitive, rule-based tasks around the clock. These are mainly frequent in the back office operations and shared services. The robot operates on a virtual desktop in the absence of human involvement (Sonya & Rotistsa, 2018). **An attended mode** is the desktop automation that is used mainly across various functions. The bot runs on the employee's machine and assists in the work actively. It provides process guidance and ensures compliance by working alongside the employee (Sonya & Rotistsa, 2018). **A hybrid mode** is where the robot runs in attended and unattended mode. It facilitates the passing of work between employees and robots, allowing them to do what they do best. The robot performs some tasks automatically and assists employees in doing others (Sonya & Rotistsa, 2018).

2.3.2 Types of Process Automation Software Robots.

Robots can handle complex and repetitive tasks in a better and faster manner. They leave humans to excel at what they perform best such as providing quality customer service, mitigating risks, and driving innovations (Yarlagadda, 2018). RPA is categorized into four types. This includes data entry, integration, trigger, verification, and validation robots (Yarlagadda, 2018).

The main frontier in the automation of processes is data entry. This involves moving data across platforms which is slow, expensive, and prone to error when using human personnel (Hintze, 2016). Data-entry bots exchange information among the systems eliminating complex integration. They copy documents to a repository, gather information from the documents, transfer data into an electronic system, and clean and transform information according to pre-established business rules.

Time is highly consumed in data verification and validation. The robots can interface with other systems to effectively verify information. They can turn unreliable and reactive processes to be reliable and unreactive ones (Morrow, 2016). In cases of an error, the robots can pass this to the human to handle it the best way possible since humans tend to have more experience. Many organizations have legacy systems customized over time that operate separately (Hintze, 2016). Working manually leads to an unfulfilled customer experience. No special coding is required to interface these systems perfectly with RPA.

Trigger robots take on tasks that are performed when a specific occurrence happens. Unlike humans, they will not forget to execute the tasks at the required time. For instance, the robot can change a claim to payment status after processing has been done.

2.4 Comparison between RPA and Artificial Intelligence

RPA involves the software robot obeying predefined rules to accomplish tasks. This does not involve comprehending or simulating human intelligence. Conversely, AI is affiliated with human knowledge. AI can process cognitive attributes associated with humans such as language, interpretation, and judgment (Forrester, 2014). Integration with AI solutions is the next 'big thing' in RPA to ensure robots understand when issues occur and take action to solve them. Robots will eventually be involved in analytics in a human-like manner.

2.5 Comparison between RPA and BPM

They are proximate disciplines with complementary targets. BPM is an approach whose focus is to attain improved business performance by way of digital transformation and continuous process improvement. The software platform encompasses functionalities like monitoring, analytics, and process design. Reengineering business processes is the business goal of BPM (Forrester, 2014; Lacity et al., 2016). BPM solutions greatly fit processes with extensive logic in business and expertise in IT investments that are high-valued like ERP systems.

RPA executes processes just like a human and deals with discreet, repetitive tasks. In the IT ecosystem, RPA does not eliminate the BPM layer but rather complements it. RPA aims at automating manual, repetitive areas of human activities involved in business processes without disrupting the underlying infrastructure (Lacity et al., 2016). RPA Integration is done through the user interface without the formation of an application layer to interface to. For BPM, interaction is by Application Programming Interface (API) together with interaction with the data access layers which requires another application.

BPMS orchestrates end-to-end processes while managing robots, humans, and system interactions. The responsibility for repetitive activities is entrusted to software robots (Cewe et al., 2017). Whereas RPA eliminates manual tasks by automating processes, BPM reengineers them with IT solutions (Willcocks et al., 2015). RPA automation can be configured by business users which require developers to code the automation in BPM solutions (Willcocks et al., 2015). Combining both technologies is encouraged to gain higher business value. RPA is a valuable and relatively inexpensive tool for firms with insufficient resources

2.6 Application of Robotic Process Automation

RPA's scalability and versatility can revolutionize various industry domains and functions such as Human Resources, Customer Support, Audit, Supply Chain, Banking, and Telecom, among others (Devarajan, 2018).

RPA can be utilized in **Human Resources** for processes like recruitment, regulatory administration, payroll processing, data processing, on-boarding, and off-boarding. Software robots can quickly gather all files in resume scanning and match them with a list of work specifications. The use of RPA equally leaves HR to focus on a wide range of value-added tasks such as talent management, personal interviewing, performance optimization, culture, rewards, and workplace design and employee training among others.

Audit firms deal with large volumes of data that are analyzed through repetitive and time-consuming processes (Devarajan, 2018). Audit firms can therefore leverage RPA capabilities throughout the audit life cycle including data collection, risk assessment, audit planning, and reporting. RPA can be applied in internal audit compliance assessment, documentation, data aggregation, and integration. RPA will standardize and merge data from multiple sources, streamline the gathering of audit evidence and potentially plan activities (Eulerich et.al, 2018). RPA may conduct audit tests in other software applications which have been pre-programmed (Cohen et al., 2019).

Customer service representatives often need to switch between different applications and data sources to respond to customer inquiries and complaints. Automating customer services significantly reduces the time spent by human agents to identify customers and provide better customer support. With RPA, the customer service representative can retrieve information more quickly and reduce the customer waiting time. Collecting and analyzing the information required may be time-consuming, resulting in delays. RPA can be integrated with customer services to automatically integrate disparate data sources, reducing the average customer handling time, reducing errors, and creating efficiency.

Routine and manual processes and data errors in **banking and financial services** can be automated using RPA tools (Devarajan, 2018). Back office banking staff can expect a reduced human effort to support commercial banking processes that require a manual transfer of data from applications to core systems to complete transactions. RPA can be applied in the maintenance of data consistency of customer details, account opening, streamlining card activation, and ensuring compliance to support against money laundering. RPA can make significant contributions to assisting compliance by ensuring the accuracy of KYC information which is a mandatory procedure for every bank customer (Dickenson, 2019). Silo data and disconnected internal processes can lead to redundant data entry, errors, and data quality issues. RPA will significantly reduce the cost of manual KYC analysis, and analyze consumer data with increased accuracy and reduced error.

The **telecommunication** sector is strategically placed to take advantage of RPA innovations (Gogineni, 2019). The industry is dominated by high-frequency, repetitive, rule-based processes that are essential to the proper delivery of services and hence highly qualified for automation. Responding to customer queries needs to be done in time.

In the **supply chain**, activities such as work invoicing returns processing, order management, quotation, contract management, and freight management would greatly benefit from RPA. **IT services** such as installation, backup, monitoring, server application, file management, batch processing, email processing, synchronization, deleting, and emptying folders would leverage the benefits of RPA for the efficient running of their processes.

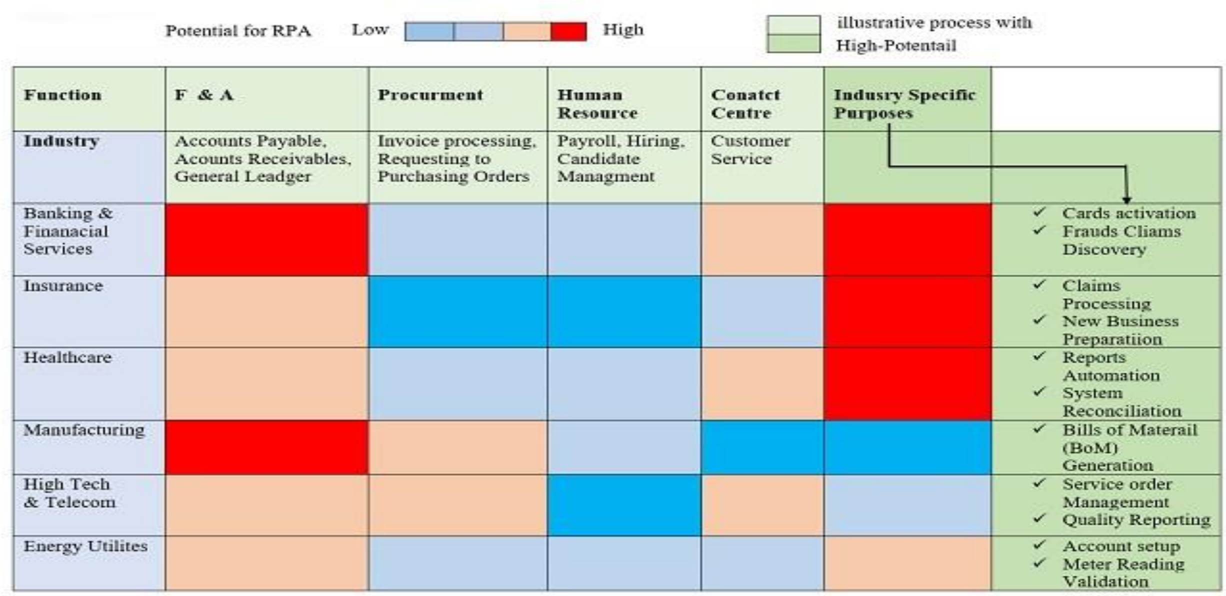

Figure 1: Potential for RPA (Devarajan, 2018).

2.7 RPA Opportunities, Benefits, and Challenges

Automation can radically transform back-office processes, enhance service quality at lower costs and improve compliance and speeds of delivery. Business process automation relieves people from demotivating duties which allows them to handle more challenging, complex, and valuable tasks, thus increasing productivity (Lacity et al., 2018). The robots work well on existing user interfaces, therefore leaving the infrastructure unchanged. It is a major benefit of back-end integration, which involves an extensive overhaul of internal systems

(Asatiani & Penttinen, 2016). RPA is easy to configure and users can be trained to automate the process independently in a short period of time (Lacity & Willcocks, 2015).

RPA greatly minimizes the expenditure that is brought about by process automation. Work is accelerated at lower rates resulting in sizeable outputs (Makkonen, 2017). The standard of work produced is of better quality than humans with minimal errors. Better quality translates to more customer satisfaction which increases the profitability of the organization.

Time taken by RPA is less compared to human labor as there is no need for professional skills in task execution. Employees are empowered to execute their duties effectively as they do not require assistance (Makkonen, 2017). They can transfer their tasks to robots easily without special coding. Employees concentrate on other tasks requiring their expertise.

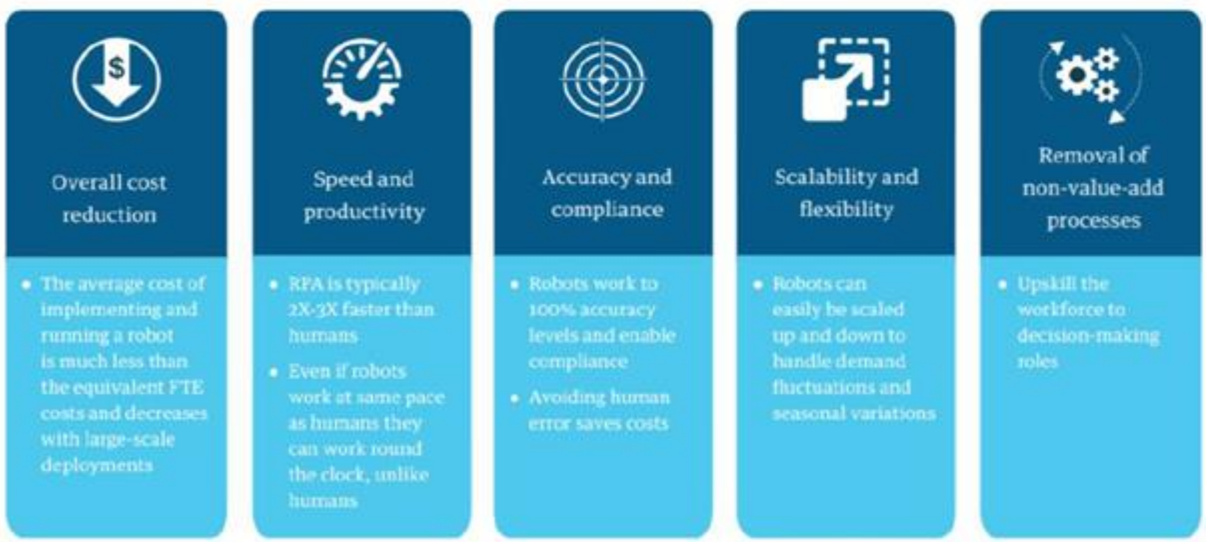

Figure 2: Summary of Benefits of RPA Adoption for Enterprise (Genpact, 2018)

RPA can be seen to eradicate jobs just like every automation technology. Forrester's research estimated that RPA could menace the livelihoods of more than 230 million workers (Chris et al., 2017). Whereas post-implementation of RPA was mainly positive with no significant observed job losses (Lacity & Willcocks, 2015), the risk of job loss with the software robots being the direct job contenders results in tensions between management and employees (Alsatian & Penttinen, 2016). The implementation should be delicately managed and communicated appropriately.

High costs restrict businesses with bounded financial resources to acquire, install and sustain robots. Systems are prone to cyber security issues and replacing human labor with software can translate to data breaches (Hyacinth, 2017). Software applications can also become unreliable to new developments as compared to human beings (Hyacinth, 2017). Deciding what to automate is a challenge if the operations team cannot point out the right processes to be automated. Embedding RPA to inefficient processes does not address a firm's need for automation.

2.8 Review of Technology Adoption Models

The process in which a decision-making unit gets the grasp of innovation creates an attitude to the technology, and resolve to embrace or reject this idea, to the confirmation is adoption (Turner, 2007). The majority of the models for technology adoption are the Technology and Planned behavior (TPB), Unified Theory of Acceptance and Use of Technology (UTAUT), Technology, Organization, and Environment (TOE), Technology Acceptance Model (TAM), Theory of Reasoned Action (TRA), and Diffusion of Innovation (DOI). DOI and TOE evaluate acceptance at the level of the firm whereas TPB, TAM, AND UTAUT evaluate adoption at the level of the individual (Oliveira & Martins, 2011).

The decision to adopt technology is a top-down approach where the decision-makers decide to adopt and invest in a technology before users get the opportunity to show their intentions. There are factors that the top management put into consideration before deciding to adopt a technology. Decision-makers should consider environmental, organizational, and other technological factors, not only the technology benefits.

This section evaluates the mainstream technology adoption models to guide on the factors that would stimulate decision-makers to invest and select RPA technology to leverage its benefits. Identification of the appropriate framework to be adopted by this research will be done.

2.8.1 Technology Acceptance Model

TAM (Fig 3) was expanding TRA theory that was developed by Davis in 1989 (Davis, 1989).

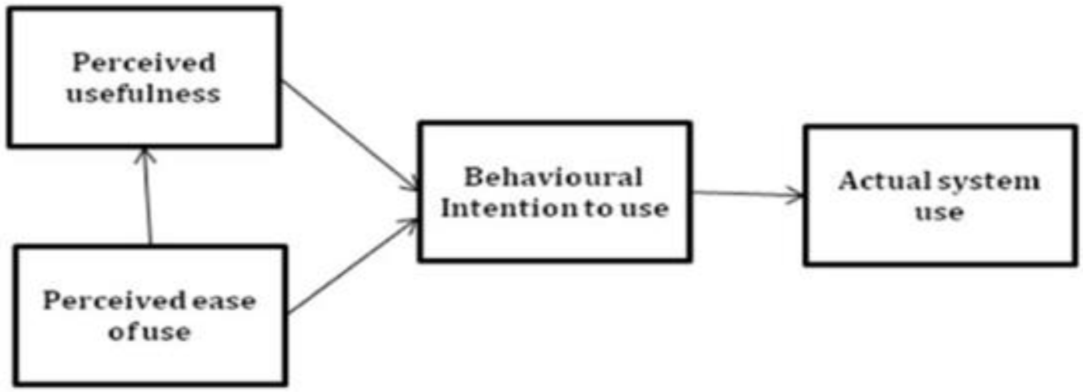

Figure 3: Technology Adoption Model (Davis, 1989)

TAM assesses the adoption of innovation through its usefulness and ease of use perceptions. Perceived Usefulness is the mindset that embracing a certain software increases work performance (Davis, 1989). Perception of ease of use is the reliance that utilizing a particular application would become effortless (Davis, 1989). External factors such as skills language and facilitating conditions coupled with cultural and political factors influence the two elements. The model shows the relationship between the external and internal variables of people such as beliefs, attitudes, and intentions of its, and the ease and use of the innovation to be taken up.

The objective of TAM demystifies the behavior of users and identify why a particular technology is not accepted and, accordingly, implements the appropriate corrective measures (Davis, 1989). TAM aimed to comprehend the causal relationship between the variables of user adoption and verify utilization of the technology. TAM focuses on individual adoption with a focus on user behavior. Only 40% of system use is explained by TAM (Legris et al., 2003). TAM is said to be too simple in explaining the decisions made across several contexts and innovations with additional variables required to fully comprehend user decisions (Davis, 1989).

2.8.2 Unified Theory of Acceptance and Use of Technology

There was a need for a unified view on embracing technology from a multitude of theoretical perspectives hence Vankatesh developed the UTAUT theory (Venkatesh et al., 2011). The key factors explained by UTAUT are social influence, performance expectancy, effort expectancy, and facilitating conditions, with gender, age, voluntariness, and experience as the moderating variables (Venkatesh et al., 2011).

Performance Expectancy describes the technology's capability to provide benefits that enhance user performance based on their expectations (Venkatesh et al., 2003). It is the level to which someone credits that utilizing a system delivers gains in performance. Effort Expectancy basis is the easiness to use an innovation. Social Influence is the expected influence by other people to embrace innovation. Facilitating Conditions show the level of infrastructure that exists to support the technical utilization of the solution (Venkatesh et al., 2016). Behavioral Intention is the prediction of a user's intent to execute tasks related to the technology use (Venkatesh et al., 2011).

Table 1: Constructs of the UTAUT Model

Constructs	**Definition**
Performance Expectancy	The capability of the technology to provide benefits and enhance the performance of the user according to his/her expectations (Venkatesh et al., 2011) The degree to which a person believes that using the system will help them to attain gains in job performance.
Effort Expectancy	User expectations about the ease of use of technology (Venkatesh et al., 2011)
Social Influence	The expected influence of others on the user to start and continue using the technology (Venkatesh et al., 2011) The degree to which an individual perceives that important others believe he or she should use the new system
Facilitating Conditions	The expected level of organizational and technical infrastructure that can support the use of technology (Venkatesh et al., 2011) The degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system (Venkatesh et al., 2016).
Behavioral Intention	The expectation of the user's intention to perform plans and decisions regarding the use of technology (Venkatesh et al., 2011)

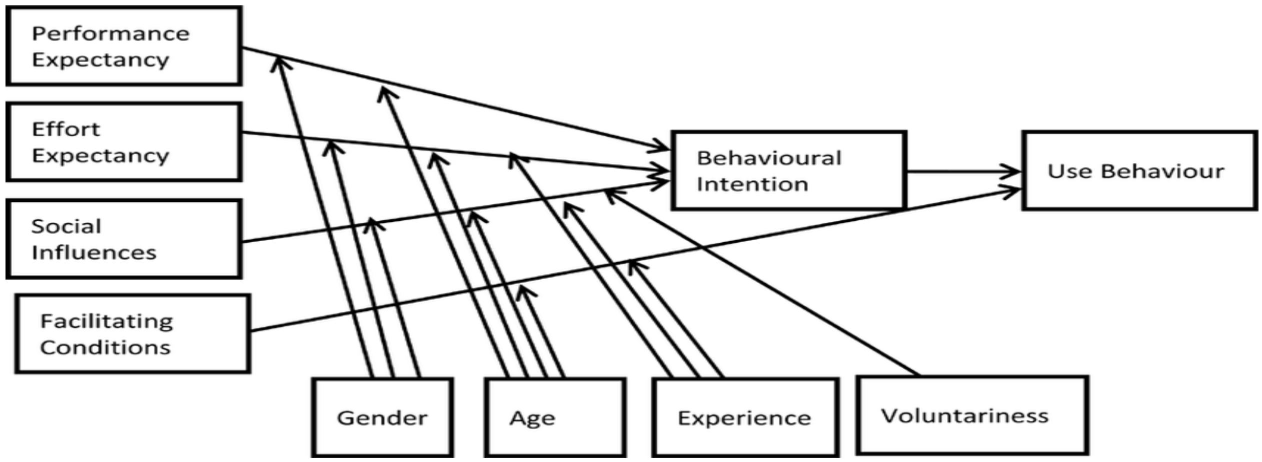

Figure 4: Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2016)

2.8.3 Diffusion of Innovation Model (DOI)

Diffusion is the process occurring in people when they respond to the knowledge about a technology (Dearing & Cox, 2018). As shown in Figure 5, the theory composes of five constructs which are Complexity, Compatibility, Observability, Relative Advantage and Trialability (Rodgers, 1995).

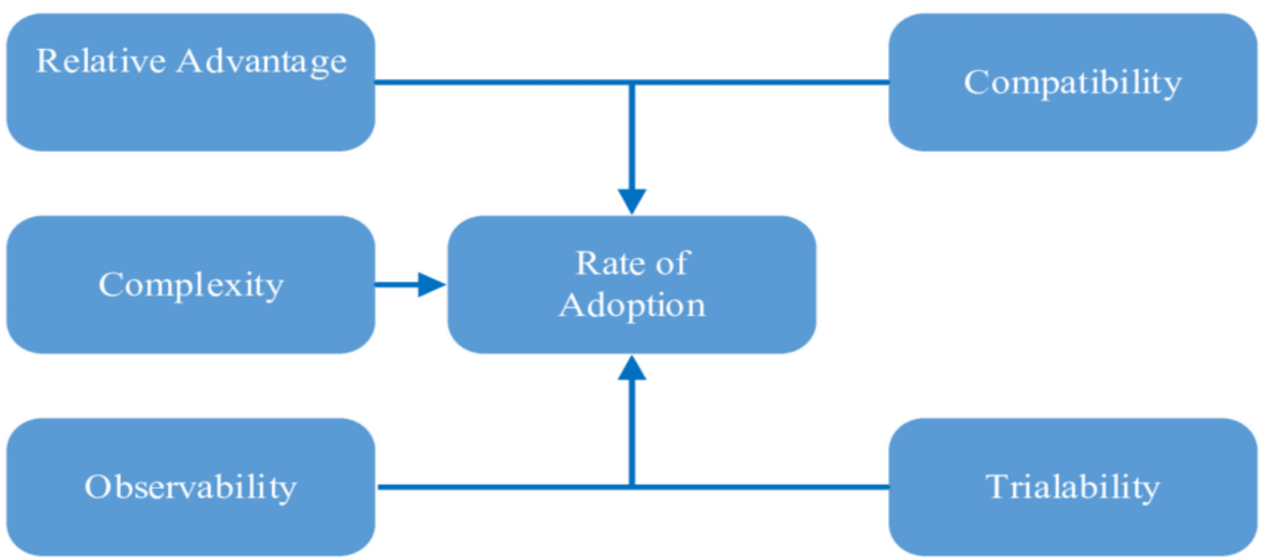

Figure 5: Diffusion of Innovation Theory (Rodgers, 1995)

This theory bundles organizations into adopter categories according to how soon they embrace innovations. These categories are Innovators, Early Adopters, Early Majority, Late Majority, and Laggards (Turner, 2007). Innovators (Pioneer Adopters) refer to those who first embrace innovation, Early Adopters refer to opinion-makers facilitating the diffusion process. The early Majority adopt innovation only when the benefits of technology are demonstrated and risks are bearable. The Late Majority is made of more conservative participants who adopt an innovation after a majority of the users have already used the new technology. Laggards are a group of people that adopts the technology long after the launch of innovation and when technology is already in the social system.

The model focuses mostly on aspects that will determine the uptake of an innovation. Among the things that Rodgers focused on in this model include the innovation itself or technology, the communication channels to be used to communicate the technology to would-be users, the passage of time from when the potential adopters would be hearing about that particular innovation, and the ecosystem that the innovation would be provided to the people (Dearing & Cox, 2018).

The innovations with higher comparative benefits were theoretically better and would be embraced swiftly. Advancements that are appropriated into an entity's present understanding of similar ideas would more likely be accepted together with those that are easy to comprehend. Further, trialability would enable the acceptance of an innovation. An entity is also more likely to embrace technology if every person has the innovation.

Communication channels make available the framework by which information about a specific development was exchanged between people. Accordingly, the degree of contact an entity has with information influences the diffusion method. Social communications, similarly to an individual assessment of an advancement by a peer or contact through broad communications (near-peers), influence an individual to embrace a comparable viewpoint on a novelty (Rogers, 1983).

Rodgers abstracted five main steps from the innovation-decision procedure that include information, persuasion, choice, application, and confirmation. The decision-making body passes from familiarity to innovation, to the development of an attitude towards technology, to the choice of whether to make progress, to the implementation of innovation, and finally to the validation of that choice. Innovativeness is when an acceptance is moderately earlier than the other affiliates of the system when it comes to innovation (Rogers, 1983).

The model is key when evaluating what causes an entity to embrace early versus late advancement, the characteristics and effects of a timely adoption, and the extent of time it takes for a group to embrace a technology. DOI can be used to understand at what rate RPA is being adopted in insurance companies.

Despite the relevance of the model to show how new technologies are adopted and used, it can overlook other influential factors such as an organization's motivation, technological maturity, and capabilities and overemphasize technology's role. DOI mainly looks at social factors, analyzing technology adoption over time and at a market or organizational level (Lai, 2017; Kumar, 2020). The need to incorporate other models to reinforce the model's validity exposes a weakness in the theory, which disqualifies it from this study (Zhu et al., 2004).

2.8.4 Technology-Organization-Environment Model

Fleisher & Tornatzky (1990) proposed the TOE theory to explain how organizations absorb technological innovation. Technical, organizational, and environmental elements affect a firm's capacity to embrace new technologies according to TOE theory (Angeles, 2013). Existing technologies and their compatibility with existing environmental technology affect how technological advancements are accepted (Borgman et al., 2014). The company's existing policies, procedures, equipment, and technology are all compatible and demanding in this respect.

A firm proceeds technologically based on its present business environment. This includes the firm itself, and the significant factors in the business sector. TOE theory (Fig 6) looks at how innovation decisions are influenced by the development of technology, the external environment where the decisions are being made, and the characteristics of the organization. These independent factors in turn influence the likelihood, intention, and extent of adoption of technology. Based on the theory, these elements influence organizations when taking up new technology. The theory explains how these elements affect a firm's decision towards technology and their performance impact on the organization (Zhu et al., 2004).

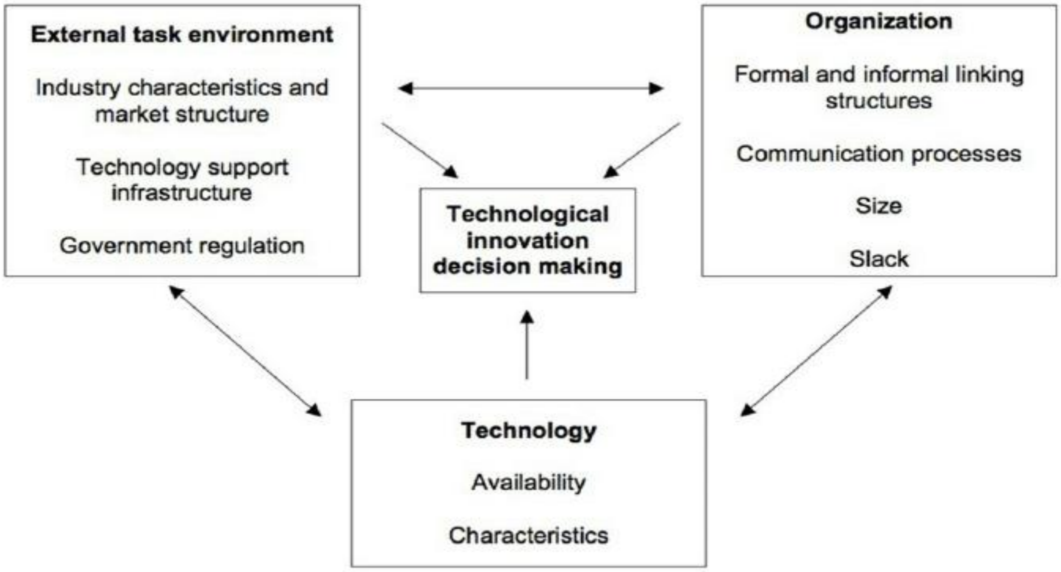

Figure 6: TOE Framework (Tornatzky and Fleisher, 1990)

Although the framework structure resembles DOI proposed by Rogers, TOE incorporates the environmental and organizational components, being able to explain the external pressures and opportunities that influence the organization (Gangwar et al., 2015). TOE is considered more robust (Alshamaila et al., 2013) and is in line with the DOI Theory at the organizational level. TOE looks at internal and external factors along the dimensions of Technical, Organization, and Environment.

TOE was considered the best theory in this study as it would give a holistic, organizational view in the research on the various elements influencing the adoption of RPA by insurers in Kenya. TOE looks at environmental and organizational factors alongside technological aspects. It can absorb broad factors that may shape the adoption of RPA technology in Kenyan insurance companies because of the large number of variables associated with contextual elements of the framework.

2.9 Conceptual Framework

Sekaran (2003) describes the conceptual framework as a theoretical model of how a researcher makes a rational sense of the relation between the various factors defined as relevant to the problem. The framework discusses the interrelationships between the variables considered integral to the problem dynamics under investigation.

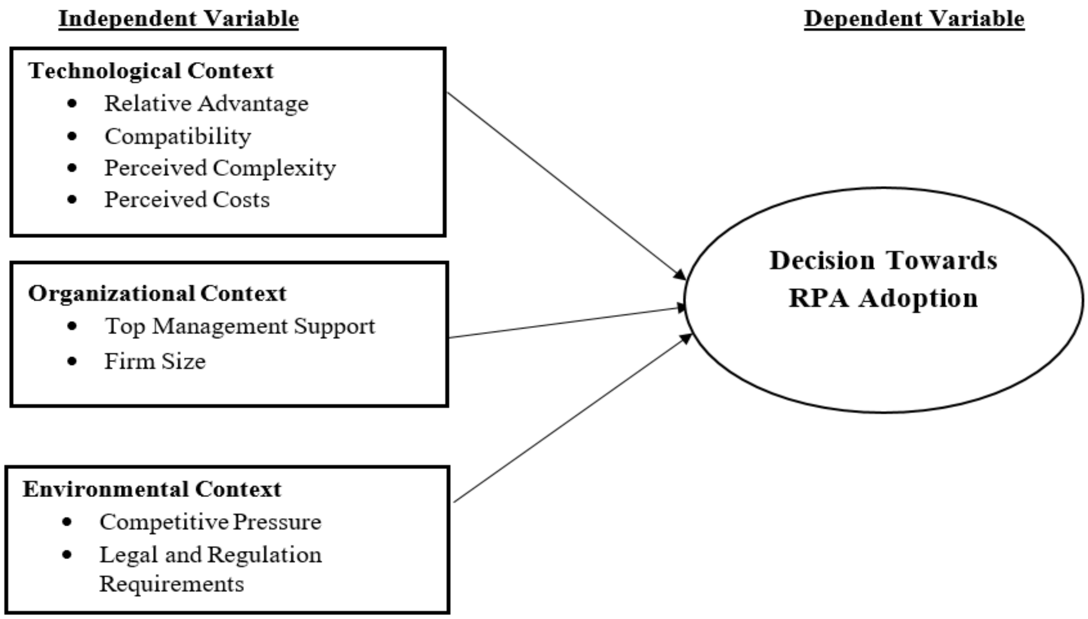

Figure 7: Conceptual Framework

The research assumes a TOE grounded model and in the assessment of the elements that influence the embracing of RPA to automate insurance-related processes. The model has shown robustness and validity concerning new IT innovations (Mtebe & Raisamo, 2013). The application of the model can enable the prediction of challenges, the impact on the value chain, the elements that influence adoption decisions of business innovations, and better development of organizational capabilities through technology (Gangwar et al., 2015). The main dependent variable is Technology Adoption which is the likelihood, intention, and extent of adoption (Tornatzky & Fleischer 1990).

2.9.1 The Technological Context

This shows the availability and characteristics of innovation accessible to organizations (Tornatzky & Fleischer, 1990). It includes the technology used in the organization, and those not being used but accessible in the marketplace (Baker, 2012). It comprises innovative characteristics of DOI that influence adoption possibility (Dedrick & West, 2003). Internal technologies constitute the basis or reference of the firm to adopt new technologies. The current technology is a benchmark during adoption as it determines the boundaries and velocity that the organization can take up the technology. This is described in terms of a firm's internal and external technologies coupled with their perceived usefulness, compatibility, experimentation, complexity, and perceived costs (Zhu et al., 2004).

Some characteristics are frequently used between technology and innovation adoption. These are observability, relative advantage, social approval, complexity, profitability, compatibility, trialability, and cost (Tornatzky & Fleischer, 1990). With this background, relative advantage, cost, compatibility, and perceived complexity describes the innovation characteristics construct of the TOE model.

Researchers have cited perceived benefits as significant in technology adoption (Gangwar, et al., 2014). Relative advantage positively relates to acceptance of a technology (Moore & Benbasat, 1999). Technology compatibility is the level by which the innovation is thought to be constant with the present standards, previous capabilities, and the wants of possible adopters (Rogers, 2003). Perceived Cost of technology impacts the adoption decision of technology as cost perception illustrates how potential users consider price relative to their purchasing power (Moore & Benbasat, 1999).

2.9.2 The Organizational Context

This context outlines the size, scope, and organizational structure of the organization (Tornatzky & Fleischer, 1990). This designates the features and assets of the business, employees' association, support from the management, size of the firm, and the number of available resources (Baker, 2012). Embracing is influenced by the organizational support for initiatives together with the firm's resources and potential to innovate (Dedrick & West, 2003). Senior management can accelerate digitization in an organization by motivating innovation swap that expands the organization's strategy and vision.

Organizational characteristics present an intersection between the structure of an organization and its workers, thus becoming an area of contradictory findings (Horwitz et al., 2013). While an organization with a well-defined infrastructure can facilitate technological adoption, adoption is less likely to succeed if the structure is centralized and very formal. (Matta et al., 2012) shows the significance of a firm's size during innovation uptake. This context consists of measures for organization beliefs, scope, and size (Tornatzky & Fleischer, 1990).

Remarkable variables are trust, slack, organizational resources, operational capability, structure, management support, knowledge, innovation capability, and use of technology (Tornatzky & Fleischer, 1990). Firm size and management support are appropriate organisational factors for RPA adoption in the literature. The scope of the company's business was not considered since we are looking at life insurance companies with basically the same scope of work in business processes.

2.9.3 Environmental Context

This context gives an industry, the competitors, and the government dependencies and relationships which include aspects related to the industry in which the organization is inserted, competitors, and the government itself (Tornatzky & Fleischer, 1990). A business conducts its activities around competitors, macroeconomic context, and the regulatory environment (Baker, 2012). Social relationships with customers and suppliers and industry-based competition are the variables considered within this context (Salwani et al., 2009). Regulations by government agencies have the potential to give an advantage or an unfavorable effect on innovation if the authorities enforce more restrictions on the sector players (Baker, 2012).

Extreme competition in the industry improves technology acceptance. Accessibility of specialists and consultants nurtures innovation. The high-tech businesses associate with swift changes, as they experience pressure, get continuously mindful of adopting innovations (Gangwar et al., 2014). Competitiveness, external and internal pressures, pressure and readiness of trading partners, supplier support, the uncertainty of the environment, competitive pressure, socio-cultural issues, government incentives, technical support infrastructure, and accessibility to quality IT consultancy (Scupola, 2009; Gangwar et al., 2014). Regulatory and legal policies together with competitive pressure and are therefore considered to be relevant environmental factors.

2.10 Operationalization of Variables

The study variables were operationalized to make them measurable by looking at possible behavioral properties of each variable. Each of the variables was measured using elements referred to as indicators.

Measure: The variables were scored as interval data from the mean score from the data collected in the survey questionnaire. Five-point Likert scaled questions ranging from 1 = strongly disagree to 5 = strongly agree were used as the measure of the indicators in this study.

Table 2: Operationalization of Variables

Variable	Definition	Indicators
Technological Factors An assessment of the technical characteristics is done in terms of potential gains and barriers, and the expected problems that the organizations may encounter during the adoption process.		
Relative Advantage	The benefits the organization expects to receive at adoption. They include increased efficiency, quality, and reliability (Rogers, 2010).	• Operational efficiency • Quality of work produced • Reliability • Process complexity
Compatibility	Compatibility explains how best innovation interfaces with current practices or value systems (Rogers, 2003). Higher compatibility translates to faster adoption. As the innovation adoption rate is proportional to the degree of compatibility	• Services fit into the organization's work style, norms, and culture • Easy integration • Standardized business processes • Preference for traditional methods
Perceived Cost	Cost perception illustrates how potential adopters assess price relative to their purchasing power (Moore & Benbasat, 1999). The perceived cost of technology impacts the decision to adopt a technology	• Setup costs • Running costs • Training costs
Perceived Complexity	Complexity is the level to which an innovation is seen as quite difficult to understand and use (Chuang, Nakatani & Zhou 2009). Complexity inhibits the adoption of an innovation (Maduku et al., 2016).	• Complexity for business processes operations • Skills needed for employees in the organization
Organizational Factors Organizational factors represent characteristics of the organization that influence innovation adoption decisions (Tornatzky & Fleicher, 1990).		
Top Management Support	Support from the top management is crucial in providing the resources required to adopt new technology (Low et al., 2011). The organization is likely to receive resistance to technology adoption (Wang & Wang, 2016).	• Top management actively seeks innovative ideas • Top management invests in ICT • Consideration to gain a competitive edge

Firm Size	The size of the firm is based on the number of employees and available support from IT (Oliveira et al.,2014)	• Number of employees served by the IT function
Environmental Factors The environmental factors represents the actors where the organization operates, implying partners competitive strategies, rivals industrial structures, customers, and government regulations (Tornatzky & Fleicher, 1990).		
Competitive Pressure	This is the pressure felt by the organization from industry competitors (Zhu et al., 2003)	• Competitive disadvantage • Competitors influence the organization's adoption • Customers' expectations drive organizational digital transformation initiatives
Legal and regulatory requirements	The government support and promotion of automation adoption among businesses (Sutanonpaiboon & Pearson, 2006)	• Regulation policies support or inhibit adoption

2.11 Framed Hypotheses

Table 3: Framed Hypotheses

H1	Relative Advantage will have a significant influence on the intention to adopt RPA technology
H2	Compatibility will have a significant influence on the intention to adopt RPA technology
H3	Perceived costs will have a significant influence on the intention to adopt RPA technology
H4	Perceived complexity will have a significant influence on the intention to adopt RPA technology
H5	Top management support will have a significant influence on the intention to adopt RPA technology
H6	The size of the firm will have a significant influence on the intention to adopt RPA technology
H7	Competitive pressure will have a significant influence on the intention to adopt RPA technology
H8	Legal and regulatory requirements will have a significant influence on the intention to adopt RPA technology

3 RESEARCH METHODOLOGY

3.1 Research Design

The study was done primarily through the quantitative research method. A research strategy is designed aiming to control bias and warrant reliability, validity, and normality (Al-Raqadi et al., 2015). Exploratory research was conducted as little is known about the current situation and little information is available on how similar research problems were resolved in the past (Sekaran, 2003). The evaluation employed a descriptive survey design, which is a good fit for gathering information on people's opinions, attitudes, habits, perceptions, or societal issues (Orodho & Kombo, 2002). This was attained by using a cross-sectional survey by collecting and analyzing quantitative data to draw conclusions.

3.2 Population and Sample Size

Population refers to a collection of objects or individuals with characteristics you want to conclude from (Kothari, 2004). If the population is below 10,000 cases, selecting a 10 to 30 percent sample size gives enough representation of the entire target population (Mugenda & Mugenda, 2013).

Slovin Formula was used to obtain a sample frame from the 26 life insurance companies. The formula provides a 5% error margin which gives a 95% level of confidence that the results of the sample represent the true condition of the population within the specified range of precision. Twenty-six life insurance companies licensed by Insurance Regulatory Authority (IRA) were the targets for the study.

n=N/ (1+Ne2)

N- Sample size

N- Population size

e- Marginal error

n=26/ (1+26(0.05)2)

=22

Random and convenience sampling was adopted in this study to ensure the presence of key decision-makers within the sample. This is a non-probability sampling technique where selected respondents are accessible to the researcher. The respondents of the study were

Claims, Underwriting, and ICT Managers. Besides being the key decision makers, this personnel represented the key owners and champions of the innovative processes in insurance. From the twenty-two randomly selected companies for the study, a target sample of sixty-six respondents was expected for this study.

3.3 Data Collection

Data collection employed the survey technique where questionnaires were dispatched to sampled respondents. A Pilot study to test the questionnaire was conducted to reveal any weaknesses in the questionnaire. Researchers rely on piloting to test the questionnaire's validity and reliability (Johannesson & Perjons 2014). According to Cresewell (2018), 10 percent of the sample size is considered significant for piloting a scientific study. Piloting aimed to ensure any errors are detected and corrected to collect valid and reliable data.

The questionnaire comprised of employees' demographic information together with the factors that influence RPA adoption: Technological, Organizations, and Environmental. The respondents were engaged to ensure they have an understanding of RPA technology, how it works and its interaction with their business processes. This was to establish that they can respond to the questions accurately since not all of them may have knowledge of RPA technology.

Documents were used to inform the questionnaires. Documents that exist in the organization such as documented processes, jobs descriptions, and procedure manuals were reviewed. The advantage of document-based research is that information is quick, cheap, and convenient to obtain. However, they were carefully evaluated using information such as the author, source, purpose, and how it was produced (Oates, 2006).

3.4 Validity and Reliability

Key measures of a quality research instrument are reliability and validity (Kimberlin & Winterstein, 2008). Kimberlin & Winterstein (2008) elaborates that reliability assesses the instrument's internal consistency and interprets the scores' reliability whereas validity is the degree to which the results' interpretations are warranted.

Validity is getting accurate, logical, or sound inferences that are accordant with the findings of the research (Arora, 2017). Different validity tests exist like content validity, criterion, and related construct validity (Arora, 2017) in scientific research. The content validity of a questionnaire should be tested to ensure the data collected is accurate and reliable. This may involve inspecting the items and contents of the questionnaire manually to ensure the needed information to help answer the study questions will be captured.

Reliability ensures accurate measurement with time, free of error or bias in the various components (Sekaran, 2003). Cronbach's alpha tested the consistency and stability. It determines how accurately the components collected respond positively to each other based on the mean inter-correlation of the elements calculated by the model (Sekaran, 2003).

3.5 Data Analysis

Conducted data cleaning and eliminated errors while ensuring consistency, the data was coded before transferring it into SPSS software for analysis. Descriptive statistics were conducted which includes measures of dispersion, central tendencies, and frequency. To show association use correlation, Chi-square, and analysis of variance (ANOVA). These helped to explore patterns and confirm hypotheses. Tables, graphs, and pie charts were used to show the data representation. The analysis explored the relationship between variables and the comparison of how groups affect each other using regression analysis and correlation analysis.

3.6 Ethical Consideration

Participants were given the liberty to take part, pull back, and give well-informed concurrence with anonymity and confidentiality rights being held fast (Oates, 2005). The respondents were prepared for the research in advance before the questionnaires were distributed. Anonymity and confidentiality was guaranteed to the respondents and maintained throughout the exercise. The data collected is only used for academic purposes. No unnecessary intrusion, integrity, appropriate professional codes of conduct, and ethical reviewer responsibility were adhered to (Oates, 2005).

4 DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Response Rate

38 responses were received out of the 52 respondents targeted for this study, which gives a 73.08% response rate. A 60% response rate or more is suitable (Mugenda & Mugenda, 2003). The response rate for the study was suitable and the findings shown relate to the 38 responses received.

4.2 Test for Normality of Data

Normality assessment was conducted to establish the distribution of the data collected. The values of skewness and kurtosis determined data normality. Skewness is applied to determine the conformity of the distribution. A positive value indicates that distribution is shifted towards the left while positive skewness highlights that distribution is shifted towards the right. The results show that data distribution is towards the left (Sekaran, 2003).

The distribution is however symmetric as the skewness value is between +1 and –1. This is an indication of a substantially skewed distribution. Kurtosis, on the other hand, is an indicator of whether the data is heavy or lightweight. A positive value in kurtosis reveals a peak distribution whereas a negative value shows a flatter distribution. The general guidance is that the distribution is too large when the number is greater than +1. Likewise, a kurtosis of less than -1 indicates an overly flat distribution (Hair, Ringle, & Sarstedt, 2016). The kurtosis value was between +1 and -1 with the highest value as 0.170 and the lowest value as -0.970. The data set, therefore, had a normal distribution.

4.3 Validity and Reliability Analysis

The utilized questionnaire was acquired from the well-grounded TOE theoretical framework. Cronbach Alpha evaluated the reliability of the collected data, which provides measures of internal consistency on the variables to the responses. This is the coefficient of reliability to show if the set of variables are correlated to each other positively. The more adjacent the value gets to 1, the greater the reliability (Sekaran, 2003). The 0.671 Cronbach's coefficient indicates that the items had a high internal consistency of 68.2% which was acceptable.

Table 4: Cronbach's Alpha value

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.671	.682	5

4.4 Demographic Characteristics

Gender of Respondents

Out of 38 respondents, 68.42% of them were male whereas 31.58% were female.

Respondents by Age

The majority of the participants were aged 30-39 at 37.0%, 27.0% were aged 20-29, 24.3% were aged 40-49 and 5.26% were above the age of 50 and above.

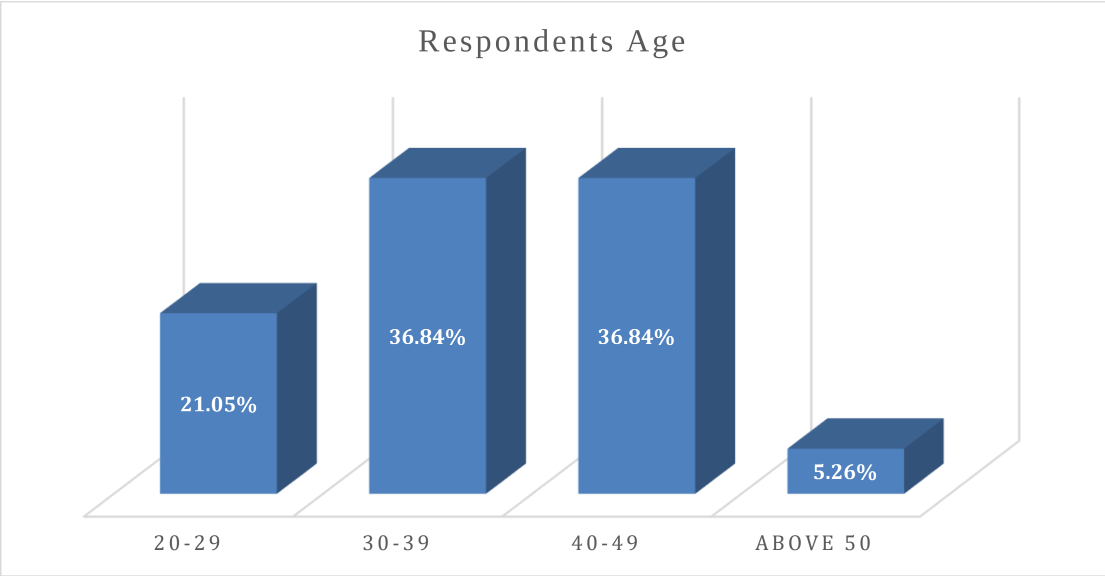

Figure 8: Age of Respondents

Respondents by Level of Education

The majority of the respondents (50.0%) had completed their education up to the master's degree at the time of the study. 44.4% had a master's degree, 5.6% possessed a doctorate, and none had a diploma.

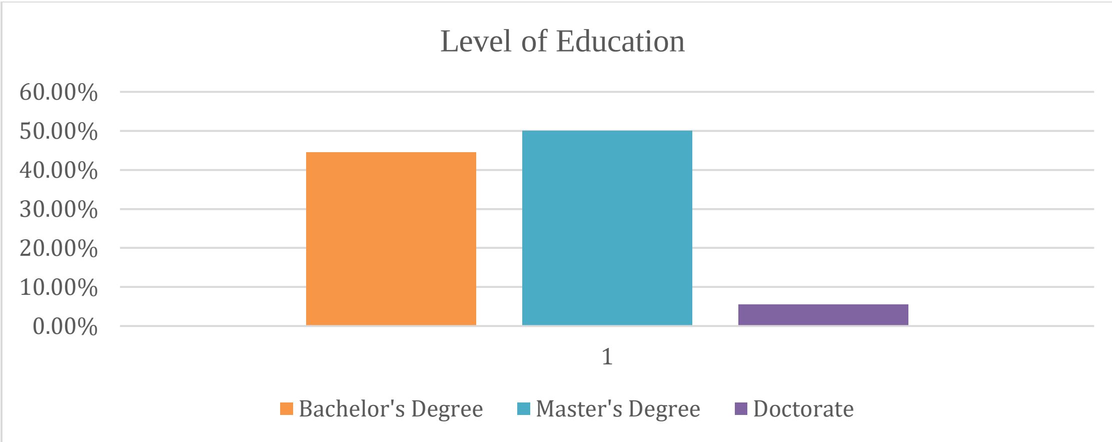

Figure 9: Respondents by Level of Education

Respondents by Years of Experience

The majority had 6-10 years of experience (50.0%) and those with more than 10 years of experience (34.21%) followed by those with 1-5 years of experience (15.8%). None of the respondents had less than 1 year of experience.

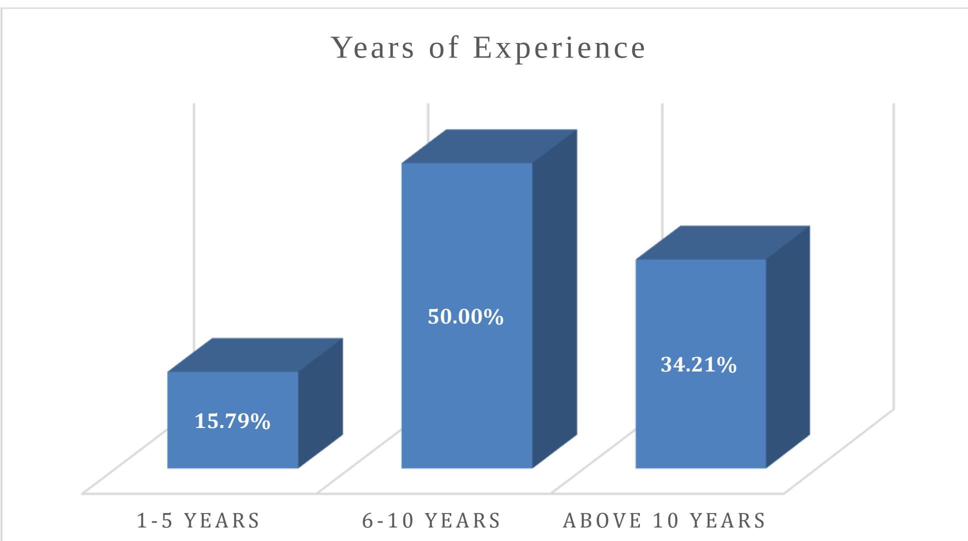

Figure 10: Respondents by Level of Experience

Respondents' Positions in the Insurance Sector

The findings reveal that the majority of the respondents (45%) worked as ICT Managers, 21% as Claims Managers, and 11% worked as Underwriting Managers and Operations Managers. 5% and 3% of the respondents worked as Team leaders and ICT Officers respectively. However, 5% of the respondents were classified in other professions which included Finance Manager and Chief Information Officer (CIO).

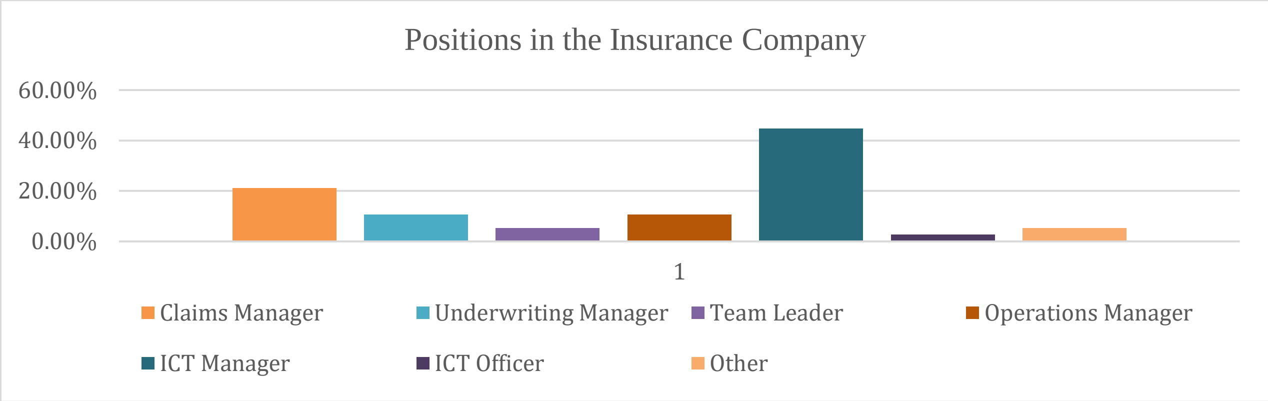

Figure 11: Positions in the Insurance Sector

4.5 Descriptive Statistics

4.5.1 Automation Initiatives

The results of the organization's automation initiatives are shown in table 5 below.

Table 5: Descriptive Statistics on Automation Initiatives

		Frequency	Percent
Deployment of automation processes in the organization	Implemented automation for some processes	34	89.5
	Currently trialing as a pilot	0	0.0
	Not currently deploying automation	2	5.3
	Not currently deploying but interested	2	5.2
Working on automation initiatives using RPA tools to ensure digital transformation.	Implemented RPA for some processes	8	21.1
	Currently trialing RPA as a pilot	7	18.4
	Not currently deploying RPA	8	21.2
	Not currently deploying RPA but interested	9	23.7
	I don't know	6	15.8
Increased productivity and reduction of errors due to process automation	Yes	38	100
	No	0	0.0
	Maybe	0	0.0

89.5% of the respondents had deployed automation processes in their organizations, 5.2% had not currently deployed automation processes whereas another 5.3% had not deployed automation processes but were interested. Additionally, it was established that 21.1% of the participants had implemented RPA for some processes, 23.7% had not currently deployed RPA but were interested while 21.1% had not currently deployed RPA. 18.4% were currently trialing RPA as a pilot and 15.8% were not sure about the automation initiatives. All the respondents agreed that process automation increases productivity and reduces errors.

4.5.2 Descriptive Statistics on the Technological Factors

Relative Advantage

Averagely, all attraction points and benefits of RPA were well understood by the respondents. The strongest focus was on the benefit of saving costs through RPA. 63% agreed that using RPA would significantly reduce costs. None of the respondents disagreed. However, 21% remained neutral in their responses. 58% of the respondents strongly agreed that using software robots would improve operational efficiency by saving time on repetitive processes and improving the quality of work produced. With 37% agreeing, 5% of the respondents remained neutral. The study established that 53% agreed that using software robots would reduce process complexity while 21% and 26% strongly agreed and remained neutral respectively.

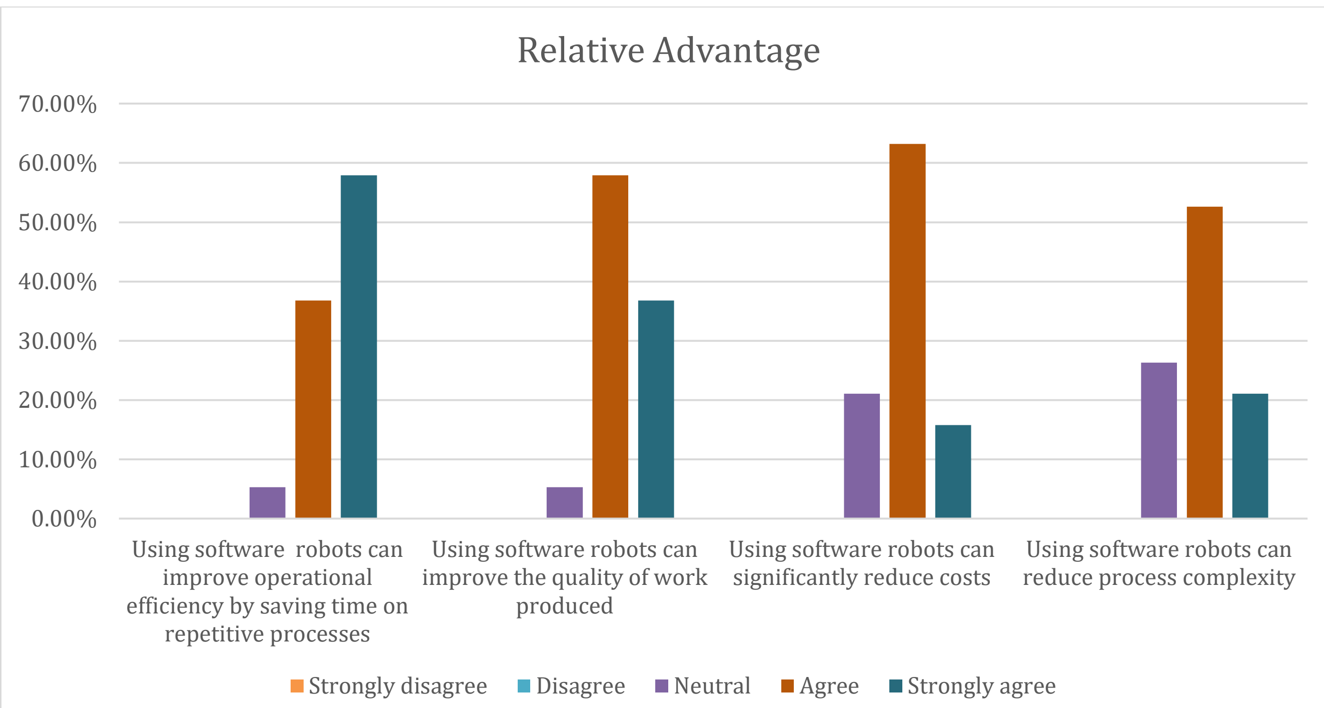

Figure 12: Descriptive Statistics on Relative Advantage

Perceived Costs

Majority of the respondents represented by 58% agreed that automation technology had high setup costs while 21% of the respondents equally strongly agreed. The results further showed that 32% of the respondents equally agreed and disagreed that automation technology had high running costs. However, 5% of the respondents strongly agreed. 48% were neutral on high training costs.

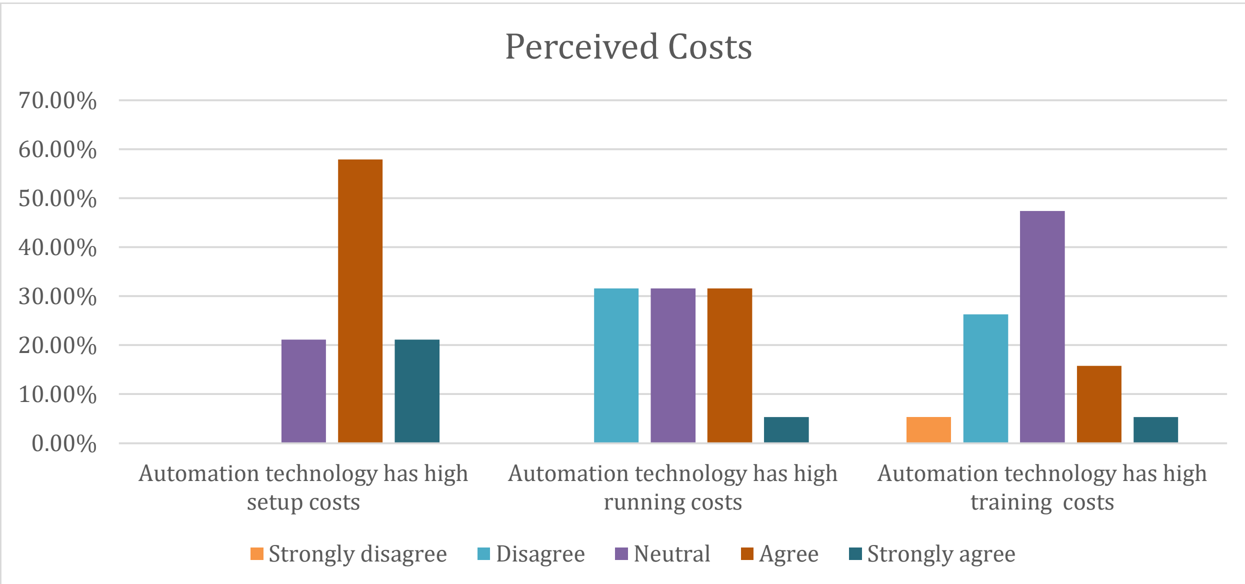

Figure 13: Descriptive Statistics on Perceived Costs

Compatibility

The responses regarding compatibility show that 58% of the respondents strongly agreed that using RPA fitted into the organization's work style, norms, and culture. 37% agreed but 5% remained neutral. The majority of the respondents (63%) agreed that RPA services could be easily integrated into existing IT infrastructure whereas 32% and 5% strongly agreed and remained neutral respectively. The results indicated that 58% agreed their business processes have been standardized as 16%, 5%, and 21% strongly agreed, disagreed, and remained neutral respectively. 45% strongly disagreed that their organization preferred to use traditional methods for information management and business processes with only 8% that agreed.

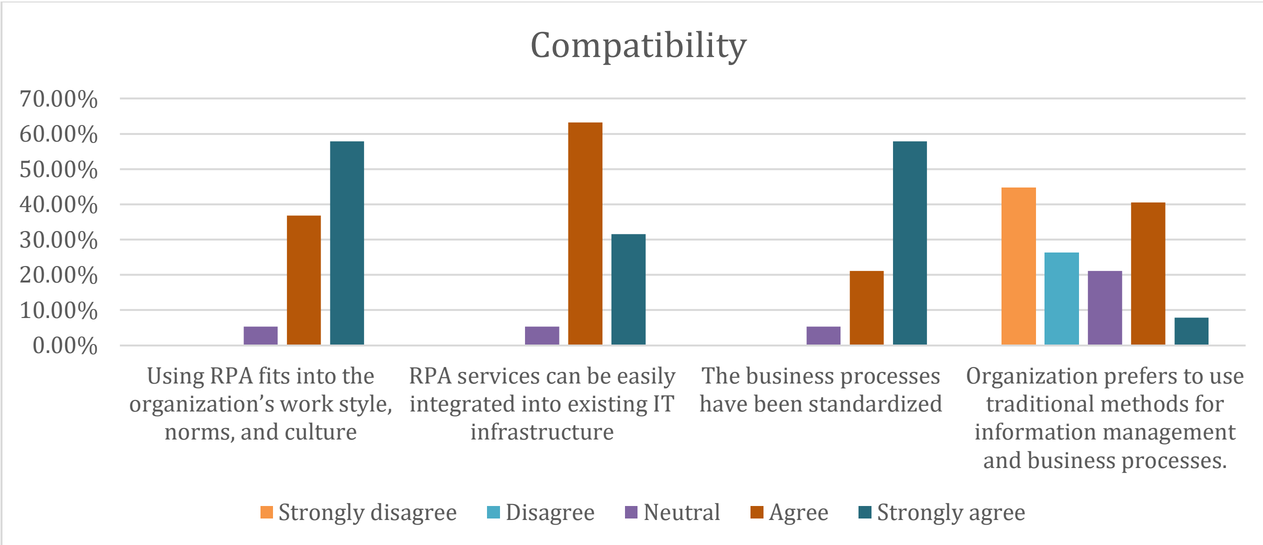

Figure 14: Descriptive Statistics on Perceived Compatibility

Perceived Complexity

The majority of the respondents represented by 68.8% agreed that using RPA can improve operational efficiency while 33.2% strongly agreed. Only 7.9% felt that RPA can be a frustration to the end users with the highest number disagreeing, 55.30%. This is in line with the majority 63.2% that disagreed on RPA being too complex for business processes.

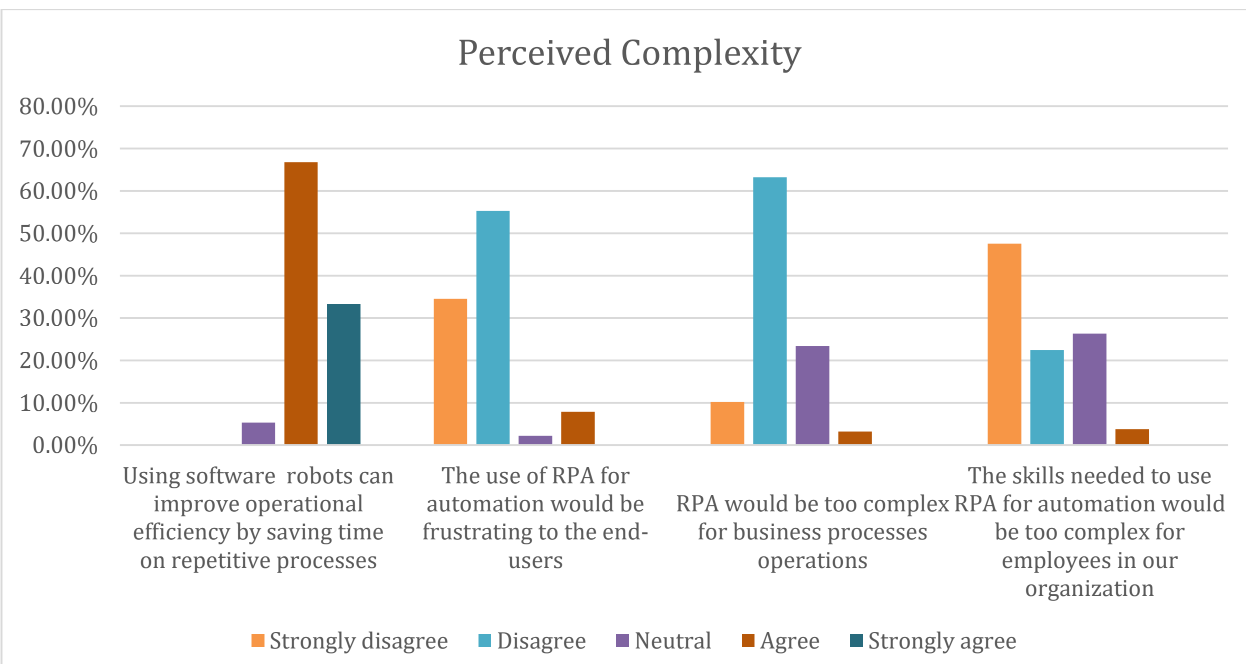

Figure 15: Descriptive Statistics on Perceived Complexity

4.5.3 Descriptive Statistics on the Organizational Factors

Top Management Support

53% of the respondents agreed that their top management invested in ICT to help improve organizational efficiencies and 37% strongly agreed. 11% remained neutral. 68% of the respondents agreed to their top management is likely to invest funds in the automation of business processes whereas 21% and 11% strongly agreed and remained neutral respectively. The results also highlighted that 58% agreed that their top management would possibly consider the adoption of RPA for a competitive edge. The findings show that 53% strongly agreed that their management actively seeks innovative ideas.

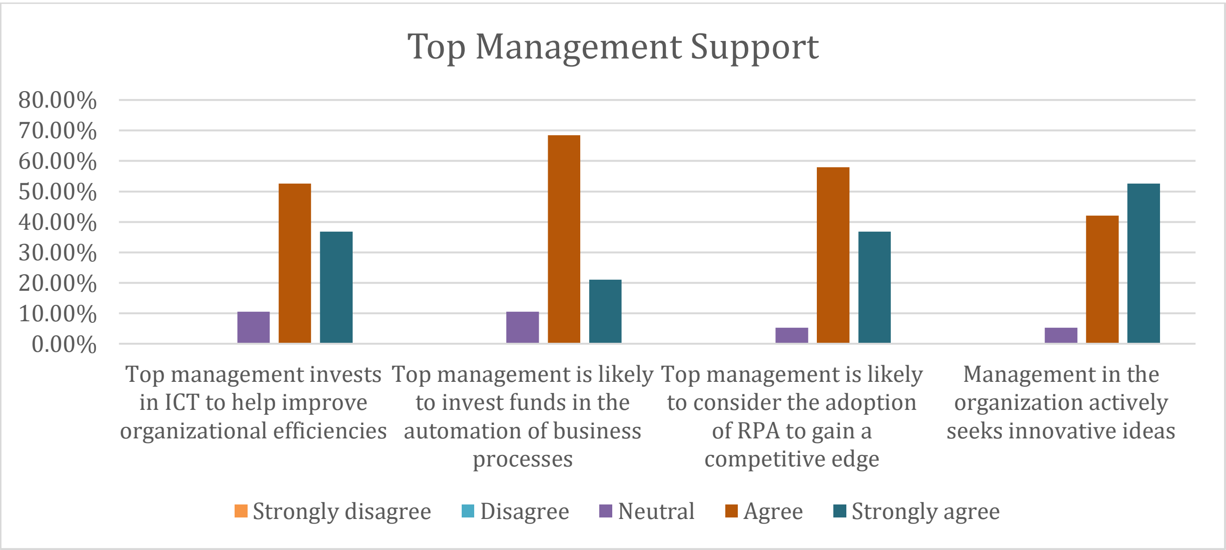

Figure 16: Descriptive Statistics on Top Management Support

Firm Size

The majority of firms (36.4%) had between 41 and 60 employees followed by firms that have more than 100 employees. With the least at 5.26%, these firms had less than 20 employees in the firm. This corresponded with the majority having between 6 to 15 ICT personnel. Bigger businesses seem to have an upper hand over the smaller ones as with more resources they can make more remarkable risks in technology acceptance. The results indicate that the size failed to show a significant relationship to embracing RPA.

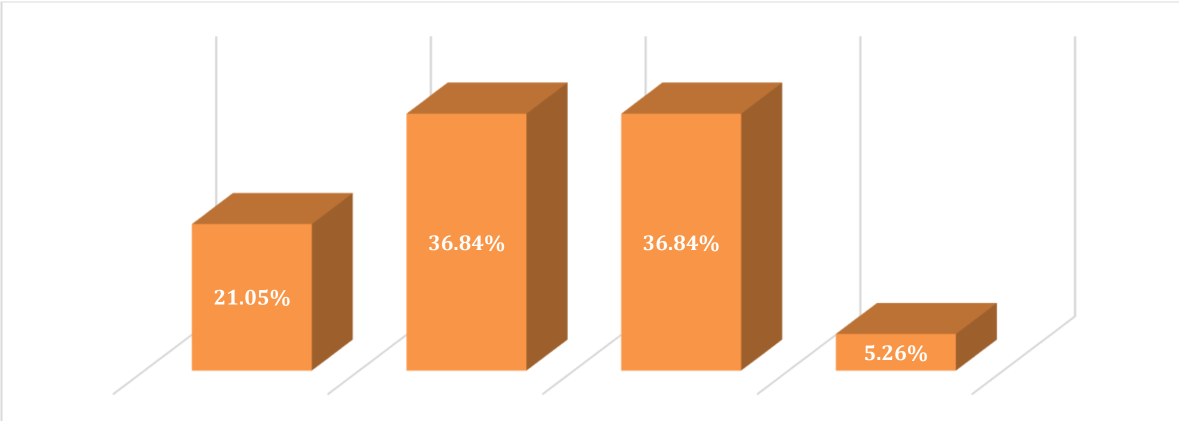

Figure 17: Descriptive Statistics on Firm Size

4.5.4 Descriptive Statistics on the Environmental Factors

Legal and Regulatory Requirements

Majority of the respondents represented by 74% agreed that current business laws and regulations support RPA operations and adoption among firms while 5% disagreed. 47% of the respondents disagreed that regulation and policies would inhibit the adoption of RPA while 32% and 11% agreed and remained neutral.

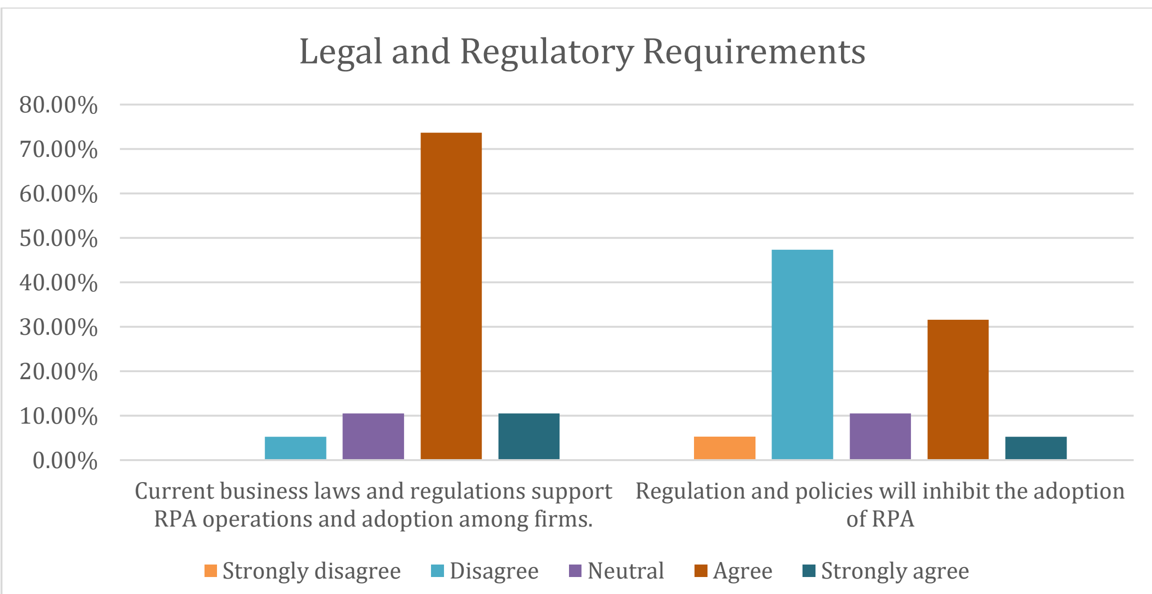

Figure 18: Descriptive Statistics on Legal and Regulatory Requirements

Competitive Pressure

The majority of the participant's influence by other parties was attributed to their competitors. 63% of the respondents agreed that their business would experience a disadvantage by failing to adopt RPA while 16% and 21% strongly agreed and remained neutral respectively. 37% of the respondents agreed that the competitor's use and adoption of new technologies had influenced their organization to adopt and use automation in processes whereas 21% disagreed. The results showed that 63% agreed that customers' expectations drove the organizational digital transformation initiatives whereas 11% remained neutral. Competitors that adopted process automation were perceived favorably by others in the industry agreed with 58%. Only 5% disagreed with this.

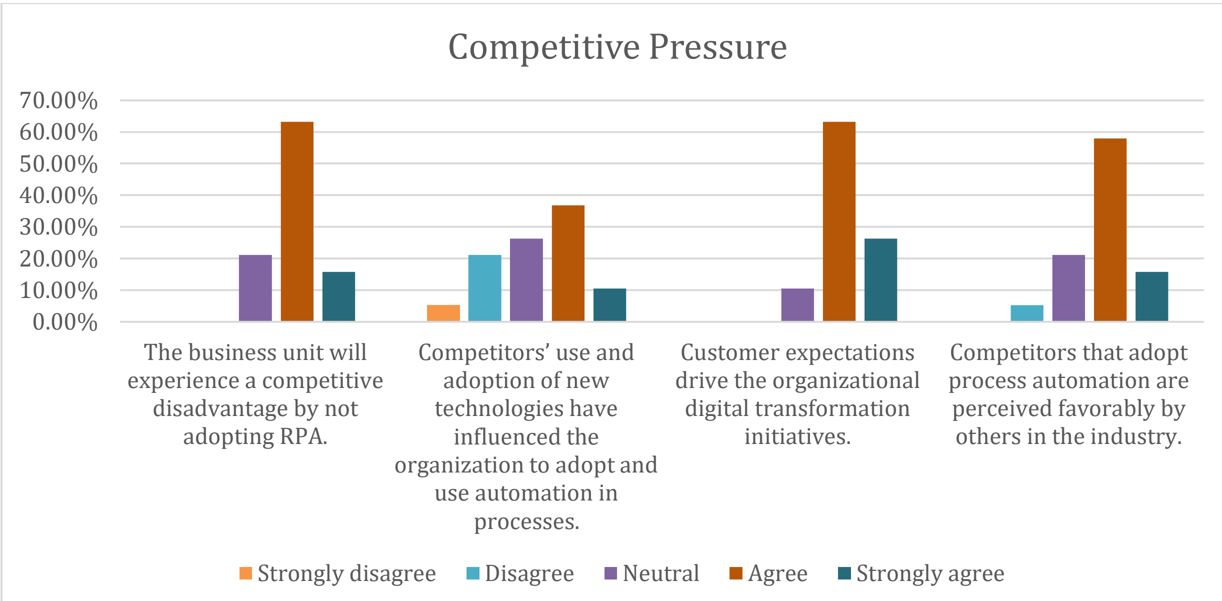

Figure 19: Descriptive Statistics on Competitive Pressure

4.5.5 Descriptive Statistics on the Intention to Adopt RPA

Between 42% and 53% responded positively that they intended to use software robots as part of technology tools. Additionally, 47% of the respondents strongly agreed that they would recommend other organizations to use software robots in their processes. The majority of the respondents given by 55% agreed they would say positive things about using robotic process automation whereas 40% strongly agreed. In all cases, 5% of the respondents remained neutral.

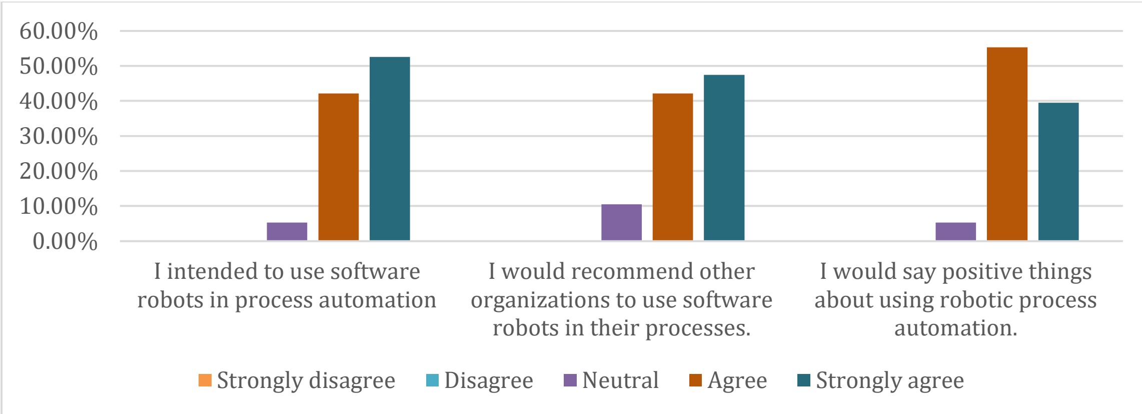

Figure 18: Intention to Adopt RPA

4.6 Model Summary

A test of the overall significance of the model between the variables was carried out.

Table 6: Overall Model Statistics

Model	R	R square	Adjusted R Square	F	Durbin-Watson
1	.989	.944	.975	547.11	2.634

The R^2 was 0.944 which implies that 94.4% of variations in the intention to adopt RPA were explained by technology factors (perceived benefits, cost, and compatibility factors), organization factors (size and top management support), and environment factors (competitive pressure and legal & regulatory requirements). The F-value (p-value= 0.043) is less than the critical F-value of the model at a 5% level of significance. Therefore, the overall model was significant in predicting the relationship between the intent to embrace RPA and the explanatory variables.

4.7 Results of Anova

The Analysis of Variance (ANOVA) results demonstrated that the overall regression model was significant; F (4,36) =26.24, p<0.001, R^2=0.84 P-value was less than 0.005 implying that the independent variables Technological factors, Organization Factors, and Environmental factors significantly influenced the respondent's Intention to adopt RPA.

Table 7: Results of Anova

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.360	4	.840	2.624	.0053[b]
	Residual	10.245	32	.320		
	Total	13.605	36			

4.8 Correlation Analysis

Correlation analysis conducted identified the relation joining the elements in the study. The correlation of Pearson bivariate evaluated the relationship between the independent variables (Relative advantage, perceived costs, top management support, compatibility, competitive pressure, firm size, and legal and regulatory requirements) and the dependent variable, Adoption of RPA.

Pearson bivariate coefficient, (ρ, also signified by rs) establishes the robustness and direction of the relationship between ranked variables. Pearson bivariate was used because the variables are ordinal, they represent a paired observation and there is a monotonic relationship between them such that as one value increases, so does the value of the other variables and vice versa.

The results indicated a remarkable positive correlation between relative advantage and RPA adoption intent ($r= 0.440; p < 0.05$), compatibility and intention to adopt RPA ($r = 0.573; p < 0.05$), top management support and intention to adopt RPA ($r = 0.611; p < 0.05$), competitive pressure and intention to adopt RPA ($r = 0.440; p < 0.05$) and, legal & regulatory requirements and intention to adopt RPA ($r=0.708; p< 0.05$). However, there was a significant negative correlation between Perceived costs and Intention to adopt RPA ($r=-3.70; p<0.05$).

From the findings, relative advantage, compatibility, top management support, size of the firm, competitive pressure, and legal & regulatory requirements were positively related to the intention to adopt RPA, indicating an improvement in one or all of these variables would result in adoption in process automation. However, there exists a negative relationship between perceived costs and the decision to adopt RPA, indicating that an increase in the perceived costs would result in a decline in the adoption of RPA.

Table 8: Correlation Analysis

			Intention to adopt Robotic Process Automation
Technological factors	Relative advantage	Pearson Correlation Sig. (2-tailed) N	0.440 0.006 38
	Perceived Costs	Pearson Correlation Sig. (2-tailed) N	-0.138 0.022 38
	Compatibility	Pearson Correlation Sig. (2-tailed) N	0.343 0.000 38
	Perceived Complexity	Pearson Correlation Sig. (2-tailed) N	-0.273 0.000 38
Organizational factors	Top management support	Pearson Correlation Sig. (2-tailed) N	0.524 0.000 38
	Firm Size	Pearson Correlation Sig. (2-tailed) N	0.128 0.022 38
Environmental factors	Competitive pressure	Pearson Correlation Sig. (2-tailed) N	0.035 0.006 38
	Legal and regulatory requirements	Pearson Correlation Sig. (2-tailed) N	0.170 0.000 38

4.9 Coefficients Results of the Regression Analysis

A multivariate regression model was utilized to analyze the factors that influence the decision to embrace RPA by insurers. The dependent variable was the intention to adopt Robotic Process Automation while the independent variables were Competitive Pressure, Compatibility, Top Management Support, Perceived Costs, Relative Advantage, Firm Size, Perceived Complexity, and Legal and Regulatory Requirements. The regression model was as follows as shown below.

Table 9: Regression Model Results

	Coefficient	Std. Error	t-Statistic	P-value
Constant	0.802	0.138	5.815	0.000
Relative advantage	0.400	0.02	20.097	0.001
Perceived costs	-0.138	0.013	-10.625	0.044
Compatibility	0.343	0.024	-14.542	0.020
Perceived Complexity	-0.224	0.022	-14.347	0.000
Top management support	0.524	0.022	24.377	0.000
Firm Size	0.128	0.013	-10.625	0.067
Competitive pressure	0.035	0.018	1.920	0.012
Legal & regulatory requirements	-0.170	0.013	-13.576	0.000

$RAP=\beta_0+\beta_1 RA+\beta_2 CO+\beta_3 PC+\beta_4 CM+\beta_5 TMS+\beta_6 FS+\beta_7 CP+\beta_8 LRR+E_t$

Where RAP=Intention to adopt RPA

RA=Relative advantage
CO= Compatibility
PC= Perceived Cost
CM= Perceived Complexity
TMS=Top management support
FS=Firm Size
CP=Competitive pressure
LRR=Legal & regulatory requirements

The table indicates the slope coefficients for the perceived benefits, perceived costs, compatibility, top management support, competitive pressure as well as legal & regulatory requirements. The results show the standard errors, t-Statistic value, and probability values relating to other variables together with the constant term.

The results of the model are as follows;

RPA=0.802+0.400RA-0.138PC+0.343CO-0.224CM+0.524TMS+0.128FS+0.035CP-0.170LRR

The overall model that links intention to adopt RPA and the predictors is given above. The 0.802 constant, is the value of intention to adopt RPA which is not dependent on other variables in this model. It is the value that influences the intention to adopt RPA that is not present in the model and therefore shows the percentage of intention to adopt RPA in the absence of independent variables.

4.9.1 The Relative Advantage Factor on the Intention to Adopt RPA

The findings established that the two elements are related positively. The coefficient obtained from the equation was 0.400(p-value=0.001<0.05). This posits a significant positive relationship between the relative advantage factors and the intention to embrace RPA. A unit increase or a unit decrease in the relative advantage factor would increase or decrease the intention to adopt RPA by 0.400 units.

4.9.2 The Compatibility Factor on the Intention to Adopt RPA

The findings conclude that there is an inverse relationship between compatibility factors and the intention to embrace RPA with a coefficient of 0. 343(p-value=0.020<0.05). This implies a significant relationship between the variables which is positive, which indicates that an increase in Compatibility factors leads to a 0.343 increase in the intention to adopt RPA holding other factors in the model constant.

4.9.3 The Perceived Costs Factor on the Intention to Adopt RPA

The coefficient obtained from the equation of the model was -0.138(p-value=0.044<0.05). This highlights that there is an inverse insignificant relationship joining the two variables. A unit increase in perceived costs would result in a decline in the intention to adopt RPA by 0.138 units.

4.9.4 The Perceived Complexity Factor on the Intention to Adopt RPA

The coefficient obtained from the equation of the model was -0.224(p-value=0.000<0.05). This indicates an inverse significant relationship joining the two variables. A unit increase in perceived complexity would result in a decline in the intention to adopt RPA by 0.224 units.

4.9.5 The Top Management Support Factor on the Intention to Adopt RPA

Results stipulate a positive significant relationship joining top management support and intention to embrace RPA. The coefficient obtained from the equation of the model was 0.524(p-value=0.000<0.05). A unit increase or decrease in the support given by top management would increase or decrease the intention to adopt RPA by 0.524 units.

4.9.6 The Firm Size Factor on the Intention to Adopt RPA

The coefficient obtained from the equation of the model was -0.128(p-value=0.067>0.05). This stipulates that there is an inverse insignificant relationship between the two variables. A unit increase or decrease in the firm size would not influence the decision to embrace RPA.

4.9.7 The Competitive Pressure on the Intention to Adopt RPA

The coefficient obtained from the equation was 0.035(p-value=0.012<0.05) which stipulates a positive insignificant relation between competitive pressure and intention to embrace RPA. These findings show that a unit increase or a unit decrease in the competitive pressure would increase or decrease the intention to adopt RPA by insurance firms by 0.035 units.

4.9.8 The Legal & Regulatory Requirements on the Intention to Adopt RPA

A negative significant relationship exists between legal & regulatory requirements and the intent to adopt RPA by the insurance firms. The coefficient obtained from the equation of the model was -0.170(p-value=0.000<0.05). The findings imply that a unit increase in legal & regulatory requirements would result in a decline in the intention to adopt RPA by the insurance firms by 0.17 units.

4.10 Summary of Findings

Technology Perspective

From the technology perspective, the relative advantage has the most significant influence on RPA adoption. Nearly all the respondents stated that the technical capabilities of the technology would assist to improve operational efficiency and the quality of work produced. Selecting the best processes to automate is among the expected issues during implementation. Processes that are not well defined do not give the expected results hence the need to carefully select the processes fit for automation. Employee training to obtain the necessary skills increase self-efficacy which is crucial for adoption (Moturi & Wairimu, 2021).

A positive relationship is identified on compatibility and the decision to embrace RPA. Adoption in insurance companies is influenced by how smooth the technology fits with the deployed processes and information systems, and less adjustment on processes to fit the software. This is in line with the findings of (Asatiani & Penttinen, 2016). A good fit eases familiarization with the technology and its diffusion in the organization. It was established that the technology fits well with their existing infrastructure, organizations' norms, and culture which is an advantage to the uptake of RPA technology and adheres to the compatibility requirement.

Efficiencies gained by the automation of repetitive tasks motivate the adoption of RPA. This creates the staff's capacity to increase their skill set. Integration with legacy systems utilizes the front-end capabilities of RPA. Robotics automation facilitates auditing to occur, placing insurers in line with the regulation and logging. Insurance can quickly scale tasks by adding more bots to perform repetitive tasks.

Organization Perspective

From the organization's perspective, top management gives a positive relationship towards adoption, agreeing with the findings of (Wang & Wang, 2016). Top management support could be an encouragement, and employee rewards for embracing RPA in their activities (Wang & Wang, 2016). They can warrant enough resources and good working culture in the firm for RPA adoption. Support from Managers shows the business is ready to handle risks and is fascinated by getting a competitive edge. Firms that have support experience minimal conflict and resistance to adopting RPA (Sharma & Yetton, 2003).

Insurance companies are not after employees in the business by taking up RPA, there is a need to whisk their digital strategy, increase efficiency and reassign employees into more cognitively fulfilling jobs. Contrary to previous researchers, firm size did not give a positive relationship with RPA adoption.

Environmental Perspective

The environmental factors; competitive pressure, customer expectations, and industry requirements had a positive relationship toward RPA adoption. Introducing RPA to their everyday operations, RPA can help them achieve their main objective of being competitive and lowering costs while increasing profitability. Repetitive and high-volume tasks replace human labor which leads to the better delivery time and cost-effective operations.

With the knowledge that their competitors are adopting new technologies, insurers experience competitive pressure and the need to adopt the technology. It is the competitive pressure of lagging behind and not pursuing a competitive advantage. This increases the need and adoption speed as they have to take the lead in a competitive environment (Lin, 2014).

Table 10: Summary of Hypotheses

Hypothesis	Status
Perceived benefits will have a significant influence on the intention to adopt RPA technology	**Accepted**
Compatibility will have a significant influence on the intention to adopt RPA technology	**Accepted**
Perceived costs will have a significant influence on the intention to adopt RPA technology	**Accepted**
Top management support will have a significant influence on the intention to adopt RPA technology	**Accepted**
The size of the firm will have a significant influence on the intention to adopt RPA technology	**Rejected**
Competitive pressure will have a significant influence on the intention to adopt RPA technology	**Accepted**
Legal and regulatory requirements will have a significant influence on the intention to adopt RPA technology	**Accepted**

5 CONCLUSION AND RECOMMENDATIONS

5.1 Achievements

Objective 1: Identify opportunities for embracing RPA in insurance companies.

The study reveals that there are major opportunities for RPA technology in the insurance industry. This goal was achieved both quantitatively from the conducted. Employees still handle manual and repetitive tasks. Transferring complex processes to machines will allow employees to concentrate on value-adding tasks. Work will be completed faster compared to human labor with improved quality. RPA is seen to significantly reduce the expenditure that comes with process automation. The perceived benefits of RPA in the insurance industry seem to be in line with the benefits from literature in other sectors. The respondents displayed interest in deploying RPA technologies to leverage the benefits of the technology (63.2%).

Objective 2: Analyze factors that influence RPA adoption decisions in insurance.

The objective was achieved by analyzing the impact of technical, organizational, and environmental factors on the intention to embrace RPA. The research employed primary data collected by issuing questionnaires to the target population and the data analysis was conducted from SPSS software.

The research established that technological elements were statistically significant in influencing the adoption of RPA by insurance firms. It was concluded that the adoption of RPA would improve operational efficiency by saving time on repetitive processes and improving the quality of work produced. High setup costs, running costs, and training costs negatively influence RPA adoption. Organizational factors influence the adoption of RPA. Insurers are more likely to embrace RPA if the top management actively seeks innovative ideas and considers the acceptance of RPA to gain a competitive edge.

The environmental factors influence the decision to adopt RPA. Legal & regulatory requirements were significant statistically to influence the adoption of RPA by insurance firms. Business units would experience a competitive disadvantage by not adopting RPA. Customer expectations were concluded as non-impactful on the adoption of RPA by insurance firms. More regulations and policies will inhibit the adoption of RPA.

Objective 3: Identify a suitable framework for the adoption of RPA in insurance companies.

Out of other models: UTAUT, TAM, DOI, the study used TOE to investigate determinants of RPA adoption. TOE is widely used to analyze organizations' likelihood towards the intention to use new technologies. According to the TOE Theory, technical, organizational, and environmental elements influence a firm's capacity to embrace new technologies. The framework by Fleisher and Tornatzky helps to investigate a wide range of innovations from an organization's perspective.

Objective 4: Validate the proposed model.

An established model to forecast the relevance of emerging innovation is valuable since the resolution to embrace innovation has risks. The TOE-based model was validated with technology, organizational and environmental factors showing a positive influence on the intent to embrace RPA technology. The final model consists of six major variable categories that are considered to be significant influencing RPA adoption. They include Relative Advantage, Legal and Regulatory Requirements, Compatibility, Perceived Complexity, Competitive Pressure, and Top Management Support. The results established that six of the eight proposed hypotheses were credited from the framework hence the following relationships between technology, organization, and environmental factors.

1. There is a statistically significant relationship between perceived benefits and the intention to adopt RPA technology.
2. Compatibility will have a significant influence on the intention to adopt RPA technology
3. Perceived complexity will have a significant influence on the intention to adopt RPA technology
4. Top management support will have a significant influence on the intention to adopt RPA technology
5. The relationship between competitive pressure and the intention to adopt RPA technology is statistically significant
6. Legal and regulatory requirements will have a significant influence on the intention to adopt RPA technology

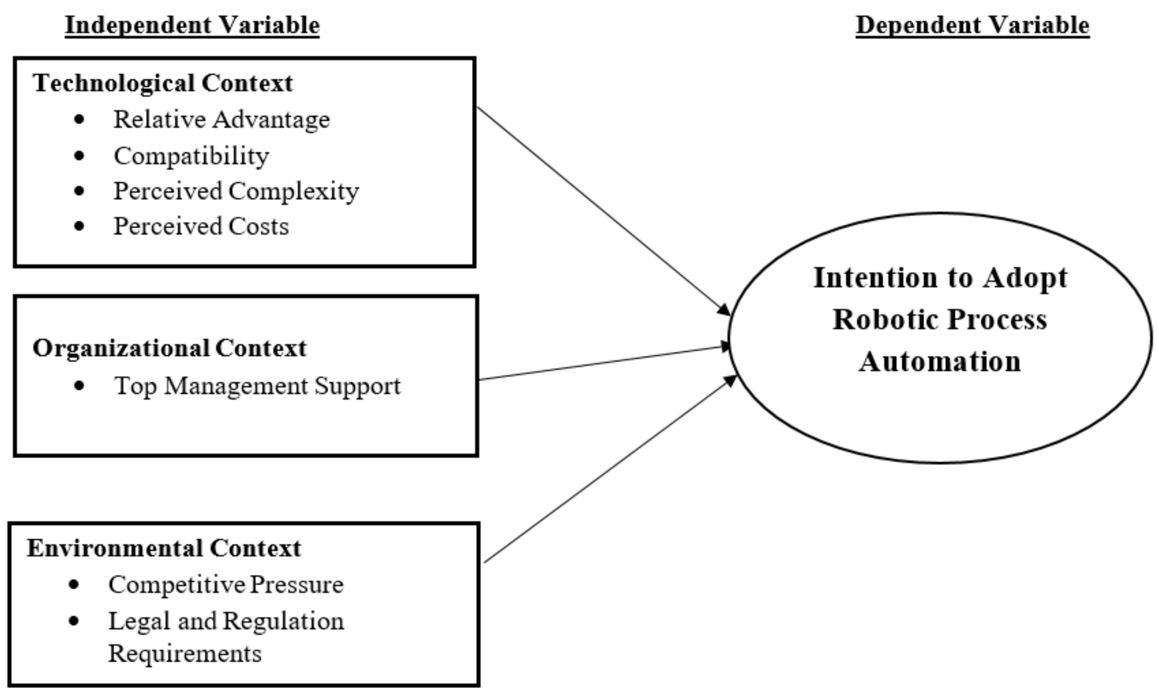

Figure 19: Validated Model

5.2 Conclusion

The objective of the research uncovers the elements relevant to organizations when making RPA adoption decisions. The validated research model explores the factors behind RPA adoption drawn from the TOE framework. From the findings, it can be seen that all three factors of the TOE framework should be put into consideration by management for cases of RPA adoption. The findings raise compatibility, competitive pressure, relative advantage, and support from top management as the most influential elements that affect the adoption of RPA. Firm size has been established as an insignificant variable in the adoption decision.

Since many insurers in Kenya are still at the point of deciding and creating a business case for RPA adoption, this study will therefore support organizations that aim at streamlining their internal processes, enabling better insight into opportunities for business process automation through RPA. The results of the study provide a starting point for decision-makers to construct their strategies around the significant factors. Executives get a greater understanding of key determinants to consider in the adoption of RPA. The insights gained equips project sponsors with beneficial information to close any gaps and construct actionable, well-informed strategies that facilitate RPA technology acceptance.

5.3 Further Study

The research focused on the pre-adoption part hence future researchers should seize the implementation and post-adoption stages for an integrated and holistic acceptance. There is value in carrying out a study as RPA and AI fully fledge in organizations establishing the effect on employees in insurance. Utilizing the findings of this study and adopting a change management model to promote the change and anticipate potential barriers when implementing RPA would be of value. To cater to the convenience sampling adopted in this study, there may be a need to research the whole population since the results cannot be generalized across the population.

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7 APPENDICES

APPENDIX I: INTRODUCTORY LETTER

Dear Respondent,

RE: DATA COLLECTION FOR RESEARCH

My name is Ruth Wangui Mbiu, a student pursuing a Master's degree in Information Technology Management at the University of Nairobi. I am conducting a research study on the level of employee interest in embracing and using software robots in life insurance business processes.

Kindly assist with the information required in this questionnaire. The information provided will be confidential and will be used for academic purposes only. All your details will be anonymous during the report generation.

Please respond to the below questions as accurately as possible. Your feedback is of great value to my study.

Thank You.

Yours Sincerely,

Mbiu Ruth Wangui

P54/37826/2020

APPENDIX II: QUESTIONNAIRE

The study is meant for academic purposes only. The information collected will be kept confidential. Please answer the below questions as accurately as possible.

A. **PERSONAL DETAILS**

1. What's your gender?
- Male
- Female

2. What is your age bracket?
- 20-29
- 30-39
- 40-49
- Above 50

3. How many years of experience do you have?
- Less than1 year
- 1-2 years
- 2-3 years
- 3-5 years
- More than 5 years

4. What is your highest3-5 y level of education?
- Diploma
- Bachelor's Degree
- Master's Degree
- Doctorate

5. What is your position in the Insurance Sector?
   a) Claims Manager
   b) Underwriting Manager
   c) Operations Manager
   d) ICT Manager
   e) Team Leader
   f) Other (Specify)
6. Have you deployed any process automation technology in your function/organization?
   a) We have implemented automation for some processes
   b) We are currently trialing a pilot/proof of concept
   c) No, we are not currently deploying automation
   d) We are not currently automating but are interested in doing so
7. To digitally transform your organization, are you working on any automation initiatives using RPA tools in your function or organization? (check box)
   a) We have implemented RPA for some processes
   b) We are currently trialing RPA as a pilot /Proof of Concept
   c) No, we are not currently deploying RPA
   d) We are not currently running RPA but are interested in doing so
   e) I don't know
8. Do you agree that process automation increase productivity and reduce errors?
   For each statement, please respond on a scale of 1 to 5. The definition of the scale is as follows. 1 = strongly disagree, 2 =disagree, 3 = neutral (neither agree nor disagree), 4 = agree, 5 = strongly agree.

B. TECHNOLOGY CONTEXT						
		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Relative Advantage	Automating our processes has improved our operational efficiency by saving time					
	Using RPA can improve the quality of work produced					
	Using RPA can significantly reduce costs					
	Using RPA can reduce process complexity					
Compatibility	Using RPA services fits into our organization's work style, norms & culture					
	RPA services can be easily integrated into our existing IT infrastructure					
	We have standardized our business processes					
	Our organization prefers to use traditional methods for information management and business processes					
Perceived Cost	Automation technologies have high setup costs					
	Automation technologies have high running costs					
	Automation technologies have high training cost					
Perceived Complexity	The use of RPA would require a lot of mental effort for operational efficiency					
	The use of RPA for automation would be frustrating to the end-users					
	RPA would be too complex for business processes operations					
	The skills needed to use RPA for automation would be too complex for employees in our organization					
C. ORGANIZATION CONTEXT						
Top Management	Our top management invests in ICT to help improve our organizational efficiencies					

	Our top management is likely to invest funds in the automation of business processes					
	Top management is likely to consider the adoption of RPA to gain a competitive edge					
	Management in my organization actively seeks innovative ideas					
Firm Size	Approximately how many total employees work within your business unit serviced by your IT function?					
	Approximately how many IT employees work in your business unit?					
D. ENVIRONMENTAL CONTEXT						
Competitive Pressure	My business unit will experience a competitive disadvantage by not adopting RPA					
	Our competitors are adopting AI technologies such as RPA					
	Our competitor's use and adoption of new technologies have influenced the organization to adopt and use automation technologies					
	Our customers' expectations drive our organizational digital transformation initiatives					
	Our competitors that adopt automation are perceived favorably by others in our industry.					
Legal and Regulatory Requirements	Regulation and policies will inhibit the adoption of RPA in my business unit					
	Current business laws and regulations support RPA operations and adoption among firms					
Intention to Adopt	We intend to use software robots as part of our technology tools					
	We would recommend other organizations to use software robots in their processes					
	We would say positive things about using robotic process automation					