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Decision Maker Characteristics and Adoption of IoT within Insurance Firms in Kenya

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Abstract: ***Despite the perceived advantages of Internet of Things, Insurance Firm in Kenya still have not widely adopted Internet of Things-enabled service or product delivery. The study sought to examine the effect of Decision maker characteristics on the adoption of Internet of Things by Insurance firms in Kenya. The anchoring theory adopted was TOE supported by DOI and TAM theories. The positivism research philosophy was utilised. The study used explanatory research design, and the 56 registered insurance Firms in Kenya was the target population. The sample consisted of 15 Chief executive officers and 270 sectional heads. Interview guide and semi structured questionnaire were used to collect primary data from Chief executive officers and sectional heads respectively. Descriptive statistics used included standard deviation, skewness and kurtosis. Logit regression was used for inferential analysis. Qualitative data on the other hand was presented on narrative form. This research established that Decision maker characteristics significantly influence internet of things adoption within insurance Firms in Kenya. The study recommends a deliberate development of a roadmap for adoption of internet of things by Insurance Firms.***

Keywords: Internet of Things, Decision Maker characteristics, Internet of Things Adoption

1. Introduction

According to Qasem, Abdullah, Jusoh, Atan, and Asadi (2019) Internet of Things Adoption is the process by which a decision-making unit (adopter) evaluates and considers a new technology. The adoption process ends with a result or a decision to adopt or decline the technology based on the firm's/adopter's assessment of the new technology. International Telecommunication Union (2012b), defines Internet of Things adoption as deployment of technological solutions based on conceptual frameworks. Internet of things is made possible through internet technologies that connect devices that monitor, collect and share data while enabling a plethora of applications such as augmented reality, smart cities, smart homes among others.

According to Gartner (2021), by the year 2025, the opportunities from IT Services for IoT market will be close to 60 billion dollars, representing a 34% increment of compound annual growth rate from 2020. This increase has been related to the fact that everyday objects like refrigerators, GPS, vehicles, lighting, and operational technologies are becoming globally connected entities. This world of interconnectedness of things is now a reality. According to Statista (2020), Internet of things connected devices that were in use by the end of 2018 was approximately 22 billion. This trend when extrapolated, suggests that approximately 50 billion IoT devices will be in use around the globe by the end of 2030. This huge web of smart devices is predicted to grow global corporate profits by around 21% by the end of 2023 as corroborated by Bradley et al (2013). Internet of Things is rapidly evolving providing plethora of applications in business and individual everyday activities, some of which are beyond the reach of speculation. Thus, IoT solutions involve multiple technologies, such as analytics; cloud; and protocol management, to maximize benefits for stakeholders. Further, IoT-based solutions have been developing exponentially in all spheres of human life and the outcome has been positive as well as negative.

According to Ndubuaku and Okereafor (2015), IoT technology is already being used in several African nations, from utility firms utilizing connected meters to track the health of outpatients to healthcare practitioners monitoring the health of inpatients, verify consumption, identify issues, and anticipate demand spikes. The IoT has the potential to provide people throughout Africa with a plethora of cutting-edge solutions and services, and in doing so, alleviate some of the challenges the region is facing, such as those caused by high levels of poverty and the need to expand access to basic services to currently underserved populations.

In Kenya, the key IoT services implemented include traffic monitoring cameras, car tracking devices, speed limiting devices, surveillance cameras, wearables among others. Some of the data collected by Government and private institutions is relevant to insurance industry. However, there is no existing mechanism of real time sharing of the data with insurance Firms to help in informed decision making, prevention of fraud and prevention of loss. Top leadership for Insurance Firms are increasingly focusing on Internet of Things adoption to include analytics of big data generated by the smart sensors which subsequently will enhance quality decision-making processes and improved products. There are many expected benefits due to adoption of IoT, however, these benefits might be difficult to realize

if the Insurance Firms do not have insight on drivers of IoT adoption. Challenges of IoT adoption include cross-border traffic, reliability, connectivity, power, regulation, privacy, security and interoperability (Luqman & Belle, 2017).

Like any other Firm, Insurance Firms determine the kind and variety of internet of things solutions/services to adopt on the basis of the tangible expected benefits that can be accrued from these products such as efficiency in the core business, enhancing IoT capacity of employees, and improving financial resources available (Chou, 2019). Most firms are familiar with basic IoT products such as tracking devices, smart cameras, sensors, smart phones, fax, computers, cloud computing, data analytics systems and chatbots. However, despite the benefits of IoT, there is little evidence that insurance Firms systematically follow the stages identified in ICT adoption.

The Internet of Things is a disruptive and trending communication paradigm that leverages artificial intelligence to embed everyday objects, with a certain level of intelligence to create intelligent sensors and actuators that are linked together to interact, send messages, make choices, take proactive measures, and deliver convenient services (Khan, Alam, Ahmad, Salim, Khan, 2022). It is a fast-emerging shift in networking and communications. There are many merits accrued to the Internet of Things, such as facilitating wealth creation, creating new and responsive products and services, and improving efficiency and effectiveness, among others.

In Kenya, Kamau, Kiarie and Musau (2021) found that decision-maker characteristics, including top management support and innovation orientation, influence IoT adoption in the Kenyan insurance industry.Kithinji, Mutua and Ndambuki (2019) found that the need for improved operational efficiency, risk management and enhanced customer experience drives IoT adoption within the insurance sector in Kenya.

2. Statement of the Problem

IoT deployments are important for enterprises, but they are still in the early stages of acceptance (Ahmetoglu, Cob and Ali, 2022). Despite the capabilities and opportunities provided by Internet of Things, Insurance Firms in Kenya have lagged behind in adopting Internet of Things technology. According to Kimani (2017), insurance businesses in Kenya continue to lag behind in taking important measures to acquire first-mover advantages through the intense use of technology, which allows for new sorts of client contacts and improves customer service delivery dramatically. Moreover, adoption of disruptive technologies such as Internet of Things by both the existing and new entrants in the insurance industry has been slow than expected (Deloitte, 2019).

Despite the expected advantages of IoT, insurance Firms in Kenya, still have not widely adopted IoT-enabled service/product delivery. Through the use of technology, the industry has an opportunity to embrace Internet of things and data analytics develop superior, customised and innovative services and products which meet user expectations and improve efficiencies that lower distribution costs hence making Insurance products accessible to all (AKI, 2019).

AKI (2016) have identified IoT and robotics as one of the major issues that will change the industry environment hence the need for Insurance firms in Kenya to adopt Internet of Things. The main IoT services implemented in Kenya include traffic monitoring cameras, car tracking devices, speed limiting devices, surveillance cameras, wearables among others. Some of the data collected by Government and private institutions is relevant to insurance industry.

This study was also inspired by conceptual, contextual, methodological and theoretical gaps in existing literature on IoT adoption. Contradicting findings by existing studies concerning the drivers of IoT adoption further intensify the need for the current study. Despite the significant theoretical and empirical attention paid to ICT adoption drivers, their impact on IoT adoption in the insurance industry remains unknown. As a result, this study attempted to fill this vacuum by addressing the question: What are the drivers for adoption of IoT within Insurance Firms in Kenya?

General Objective

The general objective of the study was to investigate the effect of Decision maker characteristics on adoption of internet of things within Insurance Firms in Kenya.

Research Hypothesis

H_{04}: Decision maker characteristics have no significant effect on adoption of IoT within insurance Firms in Kenya.

3. Literature Review

3.1 Theoretical Literature

Technology Organization Environment (TOE) Framework

The TOE framework was developed in 1990 by Tornatzky and Fleischer. It identified three factors of a Firm's environmental that determine how a corporation embraces and utilizes technology breakthroughs. It is important to think about the technological, organizational, and environmental contexts. The organisational context discusses characteristics and resources that the Firm possesses. These characteristics consist of degree of formalisation and centralisation, firm size, managerial structure, managerial structure complexity and top management support, human resources and employee linkages, slack resources, business scope and organisational culture.

The main flaw of the TOE framework is in some of its adoption predictors elements that are more applicable to large firms whose clients expect consistency but have less complaints than clients in SME firms (Awa, Eze, Urieto, & Inyang, 2011). The majority of classic adoption theories (e.g., TAM, TRA, and TPB) assume that technology, not persons, influences the structure and behavior of organizations (Cascio and Montealegre, 2016). TOE is the

only information systems theory that places a greater emphasis on both behavioural and social constructivism while also acknowledging the interplay between technological advancement and organizational settings impacted by environmental issues (Hossain & Quaddus, 2011). Analysts believe that ICT adoption determinants include the decision maker's excitement and growth ambitions, acknowledging that plans are formed by the eccentricities of the decision-maker (Awa, Ojiabo, and Orokor, 2017).

Despite the flaw of the TOE framework, it emerges as a popular theoretical paradigm in the field of information systems. Eze *et al*. (2013) and Awa *et al*., (2015) posit that the TOE framework is empirically valid through various Firm sizes and is used to support numerous ICT adoption enquiries. Further Oliveira and Martins (2011) and Eze *et al*. (2013) used the TOE framework and found that innovation characteristics, organization's technology, and external environment were all very effective in predicting and explaining adoption. TOE offers a more inclusive understanding of adoption elements, activities based on the value-chains, processes and implementation of adoption, post adoption as well as technological development capabilities (without regard to size or industry limits).

As a result, the theoretical motives as well as their specific application to IoT adoption in the context of Insurance Firms influence the TOE framework. Theoretically, Decision Maker Characteristics was measured through; Innovation of CEO, Age, CEO's Knowledge In ICT, Level of Education, Gender, Subjective Norm, Attitude, cognitive processes, background, motivation, rewards, capability, personality, training, experience, motives and beliefs.

Diffusion of Innovation (DOI) Theory

The DoI Theory, developed by Rogers (1962), tries to explain how new ideas or innovations (such as the Internet of Things) are adopted, and it proposes that an innovation has five qualities that are considered to influence adoption: relative advantage, compatibility, complexity, trialability and observability.

According to LaMorte (2019), DOI has three significant aspects, that is, identifying the diffusion stages, characteristics of the invention that influence the rate of spread, and adopter categories. James and Jeffrey (2018) note that there are different adopter types, which are: Innovators, early adopters, early majority, late majority, and laggards. The number of adopters per unit of time producing a Svshaped adoption curve.

The relevance of the diffusion model to new technologies has been criticised by Vaugh and Schiavone (2014), who argue that organizational learning and know-how play an essential role in dissemination as well. Furthermore, according to Vaugh and Schiavone (2014), adopting complicated IT systems creates a knowledge integration challenge, as well as a problem of awareness. As a result, acquiring the technical expertise required to successfully employ a complicated innovation necessitates a significant investment on the part of potential consumers. Similarly, the diffusion of innovation theory assumes that all insurance companies are inventive, which is not necessarily the case. Majorly, data for this theory and of the adopter categories is found in other industries and not from the ICT industry, which does not particularly establish application of adopting innovative behaviours or technical inventions. Additionally, IoT deployment is not encouraged by DOI as a collaborative approach and is more effective for behaviour adoption rather with behaviour prevention or termination. An individual's social support and resources is not considered in DOI in adopting a new behaviour (or innovation). For this reason, therefore, DOI is found relevant to this study in support of IoT adoption.

Technology Acceptance Model (TAM)

Different theoretical models have been presented to help explain the drivers of information technology adoption, according to Davis (1989). The Technology Acceptance Model proposed by Fred Davis and Richard Bagozzi (1989) was created with the goal of predicting users' acceptance of IT and its use in a business setting. The model can be applied to a variety of ICT populations to describe user behaviour (Davis, 1989). Prior empirical studies, according to Liao et al. (2009), attempted to explain the causes and mechanisms of users' adoption decisions using the TAM, with the belief that the adoption process influences successful use of specific technology systems. The Technology Acceptance Model focuses on two specific attitudes about innovation: perceived usefulness (PU) and perceived ease of use (PEU), both of which are crucial in terms of innovation acceptance behaviour. Perceived usefulness refers to the subjective evaluation of a computer's capability at improving outputs of tasks. Perceived ease of use includes an individual's subjective outlook on the ease of computer system use, that impacts its usefulness and thus indirectly affects adoption of the technology by the user. (Davis, 1989). TAM focuses on explaining attitudes on intent to use certain services and technologies (Bertrand & Bouchard, 2008). This study hypothesizes that technological factors influence adoption of IoT. According to TAM, there are determinants and mechanisms that influence end users' adoption decisions with the belief that the adoption process will impact effective distribution of specific technology systems.

3.2 Empirical Literature Review

Decision Maker Characteristics and the Adoption of IoT

Del Giudice's (2016) research on Internet of Things (IoT) in business process management discovered that simple installation, standardization, sturdiness, configuration, and servicing are required to keep IoT systems operational and thus provide value to the industry's business process management. According to the study, value generation from IoT applications to technological revitalizations is critical and will have an increasing impact on the IoT technologies adoption of IoT in the industry in coming years. However, individual decision maker characteristics such as CEO innovativeness, age, CEO's Knowledge In ICT, Level of Education and motivation, capability and training were not examined. In addition, a conceptual review was done thus empirical evidence was not provided.

Muriithi, Horner, and Pemberton (2016) investigated ICT utilisation in facilitating collaborative research in Kenya, as well as the factors that contribute to their adoption and utilization within the ICT ecosystem. A mixed methods study methodology was used, comprising 248 academic scientists from four different disciplines from four prominent Kenyan institutions. Within the study population, there was minimal variation in the types of ICTs employed to enable collaborative study. The UTAUT model was used and the study discovered that effort expectancy, performance expectancy, enabling factors and social influence are four key aspects that drive adoption of technology. The current study used an explanatory design and was contextually different because it focused on insurance Firms.

Hsu and Yeh (2017) investigated the determinants influencing IoT adoption in Taiwan's logistics industry. To examine the complex aspects impacting IoT adoption, the study used TOE model and the decision-making trial and evaluation laboratory technique (DEMATEL). The TOE framework was used as a foundation for developing a generic assessment framework, and the DEMATEL technique was used to build a structural model and then identify the causal linkages between elements using a cause-effect relationship diagram. The study grouped the influencing features into cause-and-effect groups to establish causal relationships in making decisions on efficiency of IoT adoption. Results indicated that adoption of IoT is significantly affected by executive management because they oversee unity of service, process reengineering and resource sharing.

Albar and Hoque (2019) in a study of rural Saudi Arabian SMEs, used an extended TOE framework with human innovativeness to examine factors influencing adoption of ICT. The results indicated that executive support, relative advantages, regulatory and cultural environment, managerial and/ or owner innovativeness, and ICT competences had significant influence of adoption of ICT, though complexity, compatibility and a competitive environment did not.

Similarly, Savoury (2019) examined factors driving American industrial sector to adopt IoT. The study combined the technology environment framework and Innovation theory to establish the existence of nexus between relative advantage, size of firm, compatibility, complexity, technological readiness, support from top management, IT leaders' intent and competitive pressure in the adoption of IoT. Sample consisted of 168 industrial executives. The findings showed that leaders' need on IoT usage is significantly impacted only by top management support, technology readiness and competitive pressure. About forty four percent of the variations of the IT leader's intention on using IoT was predicted properly by the model.

As a result of the preceding, there are no universally accepted decision maker qualities that influence the intention to embrace IoT, because most research measure this variable differently. For instance, Hsu and Yeh, (2017) used executive management support, Albar and Hoque (2019) adopted owner or manager innovativeness and ICT knowledge. However, individual decision maker characteristics such as CEO innovativeness, age, CEO's Knowledge in ICT, Level of Education and motivation, capability and training were not examined. The studies also differed in the methodology used whereby Albar and Hoque (2019), used qualitative data while Muriithi, Horner and Pemberton (2016), Hsu and Yeh, (2017) used a mixture of both quantitative and qualitative data.

4. Research Methodology

Positivism research philosophy was utilised. The study used explanatory research design, and the 56 registered insurance Firms in Kenya was the target population. The sample consisted of 15 Chief executive officers and 270 sectional heads. Interview guide and semi structured questionnaire were used to collect primary data from Chief executive officers and sectional heads respectively. Descriptive statistics used included standard deviation, skewness and kurtosis. Logit regression was used for inferential analysis. Qualitative data on the other hand was presented on narrative form. Diagnostic tests such as test for multicollinearity was conducted to ascertain conformance with the assumptions of Logit regression.

5. Findings and Discussions

Response Rate

Data was collected from the insurance sector, targeting CEOs, managers in product development, finance, marketing, underwriting and ICT departments of the insurance Firms. A total number of 270 questionnaires were administered out of which 209 responded, giving a response rate of 77.41%. Additionally, 10 out of 15 CEOs were interviewed, giving a response rate of 66.67 %. The response rate from all the units of observation in the current study was above 60%; hence appropriate for the study for the analysis and making of the inferences

Descriptive Statistics Results

Table 5.1: Descriptive Analysis for Decision Maker's Characteristics

Section	Statements	Mean	Std Dev
Innovation of CEO	Our CEO is innovative in terms of bringing new changes in the organization	4.29	0.91
	His/her innovation influences IoT adoption in the Firm	4.33	0.78
	Our CEO experiments with new IT	4.02	0.89
	Average	**4.21**	**0.86**
Age	Age influences the level of IoT adoption	3.83	1.28
	Age of the decision maker influences the level of IoT adoption	3.71	1.27
	Average	**3.77**	**1.27**
CEO's Knowledge	CEO of our enterprise is ICT literate.	4.29	0.91

Section	Statements	Mean	Std Dev
In ICT	CEO's ICT knowledge influences our firm in adopting IoT.	4.19	0.94
	CEO has the necessary skills and knowledge to use Internet of things.	4.05	1.00
	Average	**4.18**	**0.95**
Level of Education	The level of education of our CEO influences IoT adoption in our Firm	**4.02**	**1.06**
Gender	Gender of the CEO influences the level of IoT adoption	2.52	1.35
	Women are becoming increasingly invisible in the thriving technology and computer sector	2.76	1.64
	Average	**2.64**	**1.49**
Subjective Norm	Influence by others affect our CEO's decisions on IoT adoption	3.62	1.12
	Group cohesiveness influence IoT adoption process in our Firm	4.12	0.91
	Strong belief in group norms influence IoT adoption	3.95	0.93
	Fear of group penalty affect our CEO's decision on IoT adoption.	2.92	1.34
	Average	**3.65**	**1.07**
Attitude	Senior staff members give significant resources, such as personnel, money, and other resources, to the internet of things technologies.	3.67	1.15
	Senior management is willing to take on the risk of deploying IoT technology.	3.74	1.12
	The firm's management is in favor of IoT implementation.	4.02	0.89
	When it comes to IoT Technology, the Firm's senior management gives strong leadership and participates in the process.	3.86	1.06
	Average	**3.82**	**1.06**
	Overall Average	**3.76**	**1.11**

Source: Research Data (2023)

The respondents indicated their level of agreement on different statements on decision make's characteristics. Table 5.1 present the summary of the responses. Majority of the respondents agreed with the statements on innovation of CEO with a mean of 4.21 and standard deviation of 0.86; agreed with statements on age with a mean of 3.77 and a standard deviation of 1.27; agreed with statements on CEO's knowledge in ICT with a mean of 4.18 and a standard deviation of 0.95; and agreed level of education of CEO with a mean of 4.02 and standard deviation of 1.06. Respondents were neutral on statements on gender at a mean of 2.64 and a standard deviation of 1.49, while agreeing with statements on subjective norm with a mean of 3.65 and a standard deviation of 1.07, and statements on attitude with a mean of 3.82 and a standard deviation of 1.06. The overall mean for the independent variable decision maker's characteristics is 3.76, with a standard deviation of 1.11. This finding means most respondents agreed on the statements on decision maker's characteristics, as a driver for internet of things adoption within insurance Firms in Kenya.

Further, the study interviewed CEOs on some of the decisions they have implemented to enhance automation in their firms;
CEO 3 said;
"Many insurance companies in Kenya have adopted digital platforms, such as mobile apps and online portals, to improve customer service and automate processes. These platforms enable customers to access services and information at any time and from anywhere, and they also help insurers to streamline their operations and reduce costs" (CEO 3, 2023).

CEO 7 stated;
"Some insurance companies in Kenya are using AI and machine learning to automate underwriting, claims processing and other functions. These technologies enable insurers to analyse large amounts of data quickly and accurately, and to make better decisions based on insights and predictions" (CEO 7, 2023).

CEO 10 revealed;
"Insurers in Kenya are also starting to integrate IoT devices, such as telematics and wearables, into their products and services. These devices enable insurers to collect data on customer behaviour and risk factors, and to use this information to improve pricing, risk assessment, and customer engagement" (CEO 10, 2023).

CEO 1 stated;
"To effectively leverage automation in insurance, companies need to invest in data management and analytics capabilities. This includes the ability to collect, store, and analyse large amounts of data from various sources, as well as the talent and skills to interpret this data and make informed decisions" (CEO 1, 2023).

CEO 4 argued;
"Leadership and culture are also important factors in implementing automation in insurance companies. Companies need to have a clear vision and strategy for automation, and they need to invest in the necessary technology and talent. They also need to foster a culture of innovation and experimentation, and to be willing to take risks and learn from failures" (CEO 4, 2023).

Further, the study interviewed CEOs on some strategies they intend to implement in future in relation to automation in their firms.

CEO 8 said;
"Insurance companies in Kenya are exploring use robotic process automation (RPA) and machine learning to automate repetitive and time-consuming tasks, such as data entry and processing. This technology can help insurers to improve efficiency, reduce errors, and free up staff to focus on more value-added activities" CEO 8, 2023).

CEO 5 stated;
"Cloud technology is becoming increasingly popular in the insurance industry, as it enables companies to scale their

operations and access new services and capabilities more quickly and easily. In the future, we can expect to see more insurance companies in Kenya adopting cloud-based solutions for core systems and processes" (CEO 5, 2023).

CEO 3 said
"To successfully implement automation in insurance, companies need to invest in digital skills and capabilities. This includes training staff on new technologies and processes, as well as hiring new talent with expertise in areas such as data analytics, AI, and cybersecurity" (CEO 3, 2023).

CEO 7 said;
"Insurance companies in Kenya need to focus on delivering a superior customer experience in order to remain competitive and grow their business. This requires a customer-centric approach to automation, with a focus on understanding and meeting customer needs and expectations through personalized products and services, omnichannel engagement, and fast and efficient processes" (CEO 7, 2023).

These arguments from the CEOs suggest that insurance firms in Kenya are exploring a range of strategies to enhance automation in their firms, including the use of RPA, cloud technology, digital skills, and a customer-centric approach. These strategies reflect a growing recognition of the importance of digital transformation in the insurance industry in Kenya, and a desire to stay ahead of the curve in an increasingly competitive and rapidly evolving market.

Logit Regression
Table 5.2 displays a P-value of.000 and a chi-square of 63.073; thus, the overall model is significant. The study found that -2 Log likelihood is 105.255 and this signifies that the model fits the research data. Further, it was found that Nagelkerke R Squared was 0.471. This implied that 47.1% of the variations in the adoption of IoT within insurance firms in Kenya can be determined by Decision maker characteristics. The results indicate that prediction had an overall success rate (classification rate) of 84.7%. The classification rate is also known as the accuracy rate and is a measure of the proportion of cases that are correctly classified by a statistical model or test. The classification rate refers to the proportion of observations that are correctly classified as being in one category or another based on the results of the test.

Further, based on the results presented in Table 5.2, Decision maker characteristics are positively and significantly related to the adoption of IoT within insurance firms in Kenya (odds ratio=1.936, P=0.000). This implied that insurance firms in Kenya with Decision maker characteristics are 1.936 units more likely to adopt IoT than those without Decision maker characteristics.

Table 5.2: Logit Regression

	B	t=B/S.E.	Wald	P-value
Decision Maker Characteristics	1.936	0.323	35.928	.000*
Constant	-3.739	0.836	19.983	.000
Observation (n)		209		
Nagelkerke R Squared		0.471		
Model Chi-square	(1 df)	63.073		.000
Classification Rate		0.847		
-2 Log likelihood		105.255		
Hosmer and Lemeshow Test	(df 8)	13.814		.087
Note: * p <0.05				

Source : Research Data (2023)

Hypothesis testing for Decision Maker Characteristics and Adoption of IoT
The Hypothesis was tested as follows;
H_0: Decision maker characteristics have no significant effect on adoption of IoT within insurance Firms in Kenya.

The hypothesis testing was determined using the logistic regression results in Table 5.2. When the P value is less than 0.05, the null hypothesis is rejected; otherwise, not. The results presented in Table 5.2 shows that the P value is less than 0.05 (P=.000). Thus, the study rejects the null hypothesis. Hence, decision-maker characteristics have a significant effect on the adoption of IoT within insurance firms in Kenya. This agrees with the findings of Hsu and Yeh's (2017) study that indicated adoption of IoT is significantly affected by executive management because they oversee unity of service, process reengineering and resource sharing.

6. Conclusion

The objective of the study was to determine the effect of decision-maker characteristics on the adoption of IoT within insurance firms in Kenya. Descriptive findings indicated that the majority of the respondents agreed with the statements of decision-maker characteristics that were measured using the innovation of CEO, age, CEO's knowledge in ICT, level of education of CEO, gender, statements on subjective norm and attitude. The regression results showed that decision makers characteristics are positively and significantly related to the adoption of IoT within insurance firms in Kenya. The study rejected the null hypothesis. Hence, decision-maker characteristics have a significant effect on the adoption of IoT within insurance firms in Kenya. The positive and significant relationship suggests that as decision makers' characteristics improve, the adoption of IoT is likely to increase as well. It is important to consider decision makers' characteristics when attempting to increase the adoption of IoT within organizations.

7. Recommendations for Policy and Practice

Based on the study's findings, it is recommended that insurance firms in Kenya should prioritize decision-maker characteristics in their IoT adoption efforts. Decision-maker characteristics may include knowledge, experience, attitude and innovativeness. Insurance firms in Kenya should, therefore, focus on developing the knowledge and skills of their decision-makers related to IoT technology. This may include providing training and development opportunities, hiring experts with IoT expertise, and encouraging a culture of continuous learning and development. Furthermore, insurance firms in Kenya

should foster a positive attitude towards technological innovation and encourage their decision-makers to take risks and experiment with new ideas. They should also create an environment that supports innovation, such as by providing resources and incentives for innovative ideas.

Contributions to the body of Knowledge

The study examining the effect of Decision maker characteristics on the adoption of the Internet of Things within insurance firms in Kenya has made several significant contributions to the body of knowledge on this topic. The study has provided empirical evidence on the effect of Decision maker characteristics on the adoption of IoT technology within insurance firms in Kenya. This evidence can inform future research and decision-making in this area and contribute to a better understanding of the factors that drive the adoption of IoT technology.

In addition, the study has contextualized the adoption of IoT technology within insurance firms in Kenya by examining the unique drivers that influence this process. This contribution is particularly relevant for organizations operating in developing countries, where the adoption of IoT technology may be influenced by different factors than in developed countries. The study has practical implications for insurance firms in Kenya seeking to adopt IoT technology. By identifying the factors that are positively related to the adoption of IoT technology, the study provides guidance to insurance firms on the strategies they can employ to increase their chances of successful IoT adoption.

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