EFFECT OF CLAIMS DIGITALIZATION ON SERVICE DELIVERY BY INSURANCE COMPANIES IN KENYA

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DECLARATION

This research project is my original work and has not been presented for the award of any degree on any university.

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DEDICATION

I dedicate this project to my father who taught me the value of education and sacrificed so much to see me get to where I am today. May our good Lord bless you immeasurably.

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ABBREVIATIONS AND ACRONYMS

AI - Artificial Intelligence

AKI - Association of Kenya Insurers

CIO - Chief Information Officer (From International Data Group)

ECT - Expectation Confirmation Theory

EPVT - Extended Process Virtualization Theory

FNOL - First Notice of Loss

GDP - Gross Domestic Product

ICT - Information Communication Technology

IoT - Internet of Things

IRA - Insurance Regulatory Authority

IT - Information Technology

KPIs – Key Performance Indicators

OECD - Organization for Economic Co-operation and Development

PVT - Process Virtualization Theory

RPA - Robotic Process Automation

TAM - Technology Acceptance Model

UTAUT - Unified Theory of Acceptance and Use of Technology

CRM – Customer Relationship Management

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ABSTRACT

The claims' function holds an important role in operations of insurance companies. Digitalization of claims processes improves service delivery and enhances operational efficiencies, enabling insurer to focus more of customer experience. The study sought to establish the effect of claims digitalization on service delivery of insurance companies in Kenya. The study adopted a descriptive survey design with population being all (56) insurance companies in Kenya. Data was collected using questionnaires on google forms platform and later exported to and subsequently analyzed in Excel and SPSS. The information was then interpreted using graphs, tables, and pie charts. A simple regression model was then used to assess the relationship between claims digitalization and service delivery. The predictor variables under claims digitalization were self-service tools, claims automation, digital integration with claims ecosystem, back-end claims management and audit controls. Regression analysis on research findings indicated a strong positive relationship between claims digitalization and service delivery, hence implying that digitalization of the claims function impacts on service delivery. Out of the variables under study, claims automation emerged the most influential aspect of claims digitalization with respect to service delivery, followed by audit controls and backend claims management. The least influential variables were integration with third party service providers and self-service tools. From the findings, it emerged that for many insurance companies, claims digitalization has been implemented, but not fully. The use of self-service tools was minimal, but claimants had varied options of intimating claims with majority being e-mails, calls or texts, and physical presentation of documents. Though not fully integrated, majority of insurers have a panel of third-service providers. Back-end processes of claims management are good, with most companies having incorporated audit controls to minimize leakages. On service delivery, it was apparent that not all companies have a CRM software or dedicated customer service team to handle customer complaints. Majority of companies offer value addition service to claimants to enhance their experience, conducted reviews to assess customer experience and trainings on customer service to enhance service delivery. The study recommends that digitalization of the claims process be enhanced, by use of self-service tools and end-to-end claims automation. On the claims eco-system, insurers can develop databases of third-party service providers and avail this information to their customers. To minimize leakages, insurers can enhance implementation of authorization limits and maker checker controls. Customer service systems or teams can also be implemented to handle customer complaints, and training and upskilling of staff be enhanced on claims management alongside customer service. In addition, acknowledgement of claims can be made promptly to claimants and at the same time feedback from customers can be sought periodically and recommendations implemented. Insurance companies can also gather information from their clients or from records to keep track of how loyal customers are. Further research can be done with a focus on service delivery from the customer's perspective.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Insurance holds a key role in enhancing resilience of the economy by minimizing the adverse effects of risk resulting in financial loss. The claims' function plays a key role in the operations of insurance companies. It is at this point that the insurer gets to prove their promise true. At the point of lodging of a claim, customers seek for an easy and stress-free claims process. It is regarded as a "moment of truth" – a defining point in a customer-insurer relationship (KPMG, 2017). A customer expects that the insurer will settle claims quickly and seamlessly. Since customer satisfaction sets a company on a competitive edge, minimizing time taken in settling claims is one way to reduce customer complaints and enhance service delivery.

Digital technologies provide opportunities for innovation, which is reflected on enhanced processes and new products (Gault, 2018). Digitalization of claims processes enhances operational efficiencies and improves service delivery. By leveraging on technology such as artificial intelligence, distributed ledger systems, robotic process automation and cloud computing. organizations can improve their internal claims processing, through seamless end-to-end workflows. This significantly reduces the time taken to review, process and pay claims and ultimately delivers value to customers.

The study was anchored on three theories. The Process Virtualization Theory argues that amenability to virtualization varies from process to process (Overby, 2008). Virtualizability of a process ought to be viewed, not from a provider's perspective but the users instead. The Digital Business Transformation framework by Elkhuizen & Corver (2014) is based on four determinants: the customer, product, organisation processes and systems, and argues that digital transformation focuses on customers, with an aim of knowing them better, improving service and digitizing the customer experience and operations. Finally, is the expectation confirmation theory, a cognitive theory, that explains post-purchase satisfaction.

1.1.1 Claims Digitalization

According to Gartner (2020), digitalization is uses digital technologies to leverage on opportunities. Digital transformation ranks among the top three business priorities. Successful digital transformation enables industry players to cut costs, increase profits and implement new business models (Bouée & Schaible, 2015). Almost all industries have been immersed in digitalization of their processes and the financial sector has not been the exception. With emergence of technologies such as software robotics, AI, machine learning and cognitive solutions, insurers are presented with automation opportunities that can be used to transform customer experience.

However, technology without the proper knowledge of the surrounding digital transformation environment cannot achieve much, it requires knowing the environment surrounding digital transformation. This requires reorganizing in the organization, culture, and business (Stark, 2020). Digital transformation requires commitment of all the resources including technological, financial, physical, human, and organizational (Kutnjak et al., 2019).

Insurance is a means of protection from financial loss in a legal arrangement between the insurer and the insured. The insurer takes up risk on behalf of the insured in exchange of financial consideration referred to as premium. In the event of the insured suffering a loss for the risk covered the claims management process that could involve multiple parties for example police, brokers, reinsurers, loss surveyors, risk adjustors, medical practitioners, legal entities, among others is initiated. A good claim management process supports efficiency in claims handling, resulting in high service levels, end-to-end integration, reporting capabilities, and customer intimacy (Commission, 2002). The claims service delivery can make or break relationship, thus excellence in claims service delivery is a competitive differentiator. Insurers ought to focus on fulfilling consumer needs during each phase of the client venture – claims management being one of them.

Claims experience is a factor of underwriting as it evaluates a company's exposure from taking on certain risks – meaning that the claims function is dependent on other operations segments. The payment of legitimate claims is a fulfilment of contractual agreement. According to Capgemini (2017), effective claims management improves service to customers, makes a business more agile, improves risk management, reduces

indemnity costs and loss adjustment expenses and also acts as a core brand differentiator. An efficient claims process is guided by a policy which aims at superior service to customers (Machui, 2015). Efficient claims management is key to the success of insurers, and seeks to keep costs lean, reduce leakages, and keep customers satisfied.

1.1.2 Service Delivery

According to Gibson (2013) customer service refers to the process of meeting customer needs through a product or service, in an efficient compassionate and with sensitivity. Each customer, being unique, expects to receive what they feel they have paid for. Customer service has strategic significance therefore companies ought to continually improve customer experience in order to maintain a competitive edge. (Dean & Terziovski, 2000).

Customer satisfaction measures the degree to which an organizations' products or services meet customer expectations. Service delivery satisfaction is defined by (Zeithaml et. al, 1993) as a customer's judgement about a product's overall excellence evaluative behavior toward an experience or product. Expectations are key in evaluation of customer satisfaction levels and are shaped by what customers hear from other customers (firsthand), personal needs of customers, experience upon using product/service, external communication such as adverts. (Zeithaml & Bitner, 2003). In essence, customer satisfaction is measured by comparing the actual quality of service against what the customer expectations (Ghobadian et al. 1994) According to (Kim, 2005) perception of quality of service is based on expectations and strengthened by experience. Understanding the customers' expectations is therefore valuable feedback on effectiveness of services.

According to Armistead & Clark (1994), the customer service triangle has the customer at the center, with each aspect – strategies, systems, and people much be seen in their impact to customer satisfaction. The general evaluative dimensions used by customers to assess service quality are tangibles, reliability, responsiveness, competence, and courtesy (Zeithaml et. al, 1996). Most organizations would measure growth /performance based on sales numbers or profits. However, most commonly one detail – the customer – is overlooked. There is need to measure customer service and look for

weak points that can be improved upon. This can be done through surveys, calls, focus groups online search of complaints or mystery shopping (Cook, 2002).

1.1.3 Insurance Companies in Kenya

As of September 2021, IRA had listed 56 insurance companies, with life and or non-life product offerings. Insurance Penetration in Kenya stands at 2.37% compared to an average insurance penetration in Africa of 0.3% (AKI, 2020). Though higher than its counterparts, Insurance penetration in Kenya been dropping consecutively for six years – from a peak of 3.44% GDP in 2013. One of the challenges faced by traditional insurers in the Kenyan market is serving a population with poor saving culture, with 36% living below poverty line. Majority of Kenyans do not understand the insurance concept, and believe customers are shortchanged when payment of claims is done. Price undercutting by insurers in a bid to outsmart counterparts, on the other hand, leaves insurers vulnerable to huge losses, without appropriate cushioning. 1st Qtr 2020 saw the highest loss ratio in the industry attributable to Covid-19 (IRA, Insurance Regulatory Authority, Kenya, 2020)

In Kenya, customers are increasingly embracing digital technologies with internet penetration now estimated at 85.2%. Following technologies such as AI and analytics, insurers and their customers can envision smart, simplified processed (Baumann, 2020). Through innovation, insurers can employ customer centric products and develop micro-insurance products, enabling them reach a less-accessed clientele and match market needs. (AKI, 2020). In addition to the traditional insurers, are insurtech startups such as InsureAfrica, Bluewave, Kakbima, Wazinsure and Bismart that are leveraging on digital technologies to address the needs and gaps within the industry by developing products suited for millennials, low-income earners, and the rural population. Embracing of digitalization in the claims function by traditional insurers as well as insurtech startups sets them on a competitive edge against their peers – with examples of introduction of mobile applications, USSD codes and claim portals to enable filing of claims and keeping track of the turnaround times, ensuring seamless service delivery.

1.2 Research Problem

Claims management a key function of any insurance company. It is what sets apart one insurer from another, giving them a competitive edge and enables them be attractive to customers in a very competitive market with multiple insurers covering similar risks. Parviainen et al. (2017) in their research paper concluded that digitalization is key in supporting operational efficiencies and makes new service/offerings possible in what was termed as disruptive technologies for example Swvl in public transportation, Uber in Taxi industry, Airbnb in hotel business and so forth. Łyskawa et al. (2019) in their paper on digitalization in insurance companies noted that insurers were spending double over a span of close to one decade (2008 to 2017) in software acquisitions, and this positively correlated with improved performance. However, spending on ICT did not directly translate to insurance inflow. A study by Yusuf et al. (2017) on insurance claim management concluded that there is need to improve systems used by claim handlers, which impacts on organizational efficiency of insurers and at the same time ensures complaints by clients are handled with ease thus boosting service delivery.

Customer service delivery should be at the heart of any insurers' strategy and operations. Satisfaction occurs when performance fulfills expectations, whereas dissatisfaction occurs where performance falls below expectation (Swan & Combs, 1976). Satisfied customers rebound more and tell others about their experience (and so do unsatisfied customers). Delivering value to customers during the claims process, as well as before and after, is therefore key to any insurance company seeking to thrive in a competitive market, since it is not possible for it to grow if it disregards its customers' needs. (Tao, 2014).

The insurance industry in Kenya has a negative perception from the public, most of whom do not understand the insurance concept, or might have had a bad experience with insurers during the claim process due to delays, ambiguous policy terms, non-payment, demand for too many supporting documents and lengthy litigation. Most of these challenges may be attributed to the organizational internal systems of claims management which are in most cases not automated therefore resulting in tedious paperwork, opportunities for leakage such as fraud, inability to maintain records

appropriately and ultimately high customer turnover. Technologies' role in the claims process in enhancing service delivery, can therefore not be underestimated. This study aims to assess impact of incorporation of digital technologies in the claims process on service delivery.

Many scholars have researched on insurance related topics. Gachau (2016) researched on quality of insurance service delivery and concluded that management ought to focus on employee's welfare and quality of work-life with an aim of enhancing loyalty and offering quality service to customers. Chepkwony (2018) researched on how performance of insurance companies is influenced by e-business strategies and concluded e-business strategies are indispensable tools for insurance companies' performance. Kiana (2010) conducted research on challenges faced in general insurance claims' management in Kenya faces and noted that main causes of delay in processing of claims were delayed documentation of claims, submission of investigator's reports and high staff workload. From the studies, the aspects of service delivery, customer satisfaction, impact of e-business strategies on performance and claims management in insurance companies were discussed. However, the impact of digitalization in specifically the claims function of insurance companies on service delivery does not come out clearly. This research aimed to fill this knowledge gap and answer the research question, what are the effects of digitalization of the claims function on service delivery by insurance companies in Kenya?

1.3. Study Objective

The objective of this study was to determine the effect of digitalization of the claims function on service delivery by insurance companies in Kenya.

1.4 Value of the Study

This study is significant to insurers as it will enhance understanding and appreciation for digitalization on their claims function, considering how this impacts on service delivery to their customers. With new opportunities being made available through incorporation of digital technologies in a fast-paced digital technological era, insurers will be able to keep up to date with market trends and focus on strategies that provide solutions for

business processes. At the same time, insurers will get a feel of the state of service delivery in their claims management, thus enhancing interaction with customers and provide customer-centric services. This in turn will enable them to achieve a competitive edge against their peers and attract and retain customers.

The policy makers including the Government, Insurance Regulatory Authority (IRA) and Association of Kenya Insurers (AKI) will have a wider outlook of the claims function in the insurance companies. This will inform strategic decision making on enhancement of service delivery of the claims function of insurance companies in Kenya through encouraging incorporation of digital technologies in processes. Policymakers through the research will identify problems in the insurance industry thus formulate and implement policies to counter these problems on service delivery, thus driving better service for customers.

This study will also provide a basis for study reference. Scholars and researchers will be able to expand their understanding on digitalization of claims function and its impact on service delivery, as well as enrich the knowledge base of these concepts. In addition, scholars will have access to current information on digitalization in claims management in a fast-changing environment thus keeping up to speed with latest trends. This will allow building up upon ideas, while at the same time introducing new ideas on feasible research areas.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents literature review on digitalization and service delivery. It addresses theories guiding the study, empirical and theoretical review of study variables as well knowledge gaps present.

2.2 Theoretical Foundation

The study will be based on three theories that explain the variables of digitalization and service delivery. The process virtualization theory and digital transformation framework seek to explain virtualizability of a process, and how the digitization process ought to focus on the customer, respectively. On the other hand, expectation confirmation theory explains how expectations reflect on customer satisfaction.

2.2.1 Process Virtualization Theory

With technological advancement, many processes that heavily relied on physical interactions have been virtualized in a bid to make them efficient and streamlined. This theory argues that amenability to virtualization varies from process to process and proposes that virtualization be viewed from a user's not provider's perspective. PVT has four main constructs (relationship, sensory, synchronism and identification & control requirements) and moderating effects. (Oversby, 2008)

Sensory requirements are needs of process participants to experience sensory elements of the process. Theoretical research conducted by Apte & Mason (1995) concluded that business processes requiring physical interaction are not easy to conduct in virtual settings since elements like sight, hearing and touch cannot easily be replicated. Relationship requirements are the needs to interact with other process participants, often resulting in trust development, knowledge and friendship. There have been multiple studies on ease of formation of relationships in virtual settings, drawing from Social Presence Theory that explores how sense of oneness is affected by digital interference (Short & Williams, 1976) and Media Richness Theory (Daft & Lengel , 1986) which

ranks face to face mediums as a richer and effective medium, compared to leaner and less effective medium for instance unaddressed documents, bulk mails / broadcast messaging.

Synchronism requirements are the way a process is set to minimize delay. Ideally, physical processes, being located in one setting can move from one step to another with little delay. Virtual processes, on the other hand are abstracted from participants and objects which can result in delays – for example an approval for claim payment done virtually would demand that the handler check on their tasks, whereas in a physical setting one might easily walk into an approver's office. Though not always a disadvantage, since users can conduct activities at their own convenience (Arbaugh, 2000) and may enhance quality of work by allowing sufficient time to review tasks before actioning (Sproull & Kiesler, 1991). Finally, identification and control requirements provide unique are the level to which a process needs unique identification. Processes which do not require identification of process participants can benefit from anonymity, but at the same time may result in fraud where client cannot determine the legitimacy of a seller / product (Friedman & Resnick, 2001).

Alleviator components like monitoring, reach and richness potency aim to enhance the operation of virtualization of the process. Representation shows IT's ability to present information of a process. Reach is the second construct that allows participation across space and time. Third is the monitoring capability that is IT's capacity to confirm authenticity of users and track activity for example in reporting and biometrics (Jain et al., 2000).

This theory complements related information systems theories. TAM & UTAUT assess acceptance of technologies. TAM explains that ease of use is dependent on implementation of user interface. PVT, however, is used in the early stages of an IT (Overby, 2008). PVT is more comprehensive when compared to media richness theory since it targets all processes and process characteristics not just communication tasks between people. PVT can explain user resistance to IT. PVT provides the simplest place to begin investigation and prioritization of potentially virtualizable processes. There has been development on PVT as proposed in the study by Barth and Veit, 2011, Extended Process Virtualization Theory (EPVT).

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PVT forms a building base in analyzing business re-engineering models, to determine whether a process can be enhanced, by automation of steps/ procedures within it (Davenport, 1993). PVT is relevant to the study as it provides a framework for practitioners migrating processes from a physical to virtual system – thus improving service delivery and cutting costs. A well thought out, user-focused selection focused on virtualization is essential to successful service delivery.

2.2.2 Digital Transformation Framework

Digital transformation refers to use of technologies to cause a fundamental change in organizational operations, with an aim of improving performance. Young & Rogers (2019) define business transformation as being technology-driven. Digital business transformation results in change to key operations of a business and impacts on processes and products as well organizational structures (Matt et al., 2015).

The Digital Business Transformation framework proposed by Elkhuizen and Corver (2014) is focused on: the product, customer, organisation processes and systems. It argues that digital transformation begins with customers with an aim of knowing them better, improving customer service, digitizing the customer experience and operations. This is helpful to firms as they develop a digital vision, and explains, through reverse engineering approach, how organisations can transition to digitalize their business models, in times when consumers demand insight driven and customised experience (Nwaiwu, 2018).

Through customer relationship management, organizations can compile data about their target clientele and how to best serve their needs – thus driving marketing, sales growth, increasing operational efficiency and customer retention (Barhami et al., 2012). Organizations can employ digital marketing tools to increase customer loyalty in an era where majority of customers are active online (Merisavo, 2008). In this digital era, changes happen continuously, necessitating rethinking of business models to stay ahead of competition. According to Arakji & Lang (2007), through automation, organizations can respond to demand, thus sustaining profitability. Customers are also able to co-create and influence product development because of digital collaboration.

Finally, since digital business transformation is still evolving, contextualization is required in any implementation. With various frameworks available including The Digital Reinvention Framework (Berman et al., 2016), Digital Innovation Strategy Framework (Nylén & Holmström, 2015) and Digital Orchestra Framework (Wade et al., 2017). the choice of framework an organization can adopt ought to be considered carefully based on factors such as corporate strategy, business model, ICT capability, human resources, and financial position. Depending on the context, a combination of models is sometimes appropriate. This theory is applicable to the study since it is a tool that can be used by insurers to reposition themselves in a digital era, leveraging on technology in its processes and thus maximize opportunities in enhancing internal processes with an aim to serve customers better.

2.2.3 Expectation Confirmation Theory

Expectation confirmation theory notes that post-purchase satisfaction is a factor of expectations, performance (perceived) and disconfirmation of beliefs. When outcome tone with expectations *confirmation* occurs. *Disconfirmation* occurs when expectations and outcomes do not match. Confirmation results in customer satisfaction and vice versa. Customer satisfaction is a key factor that determines consumers' subsequent behavior (Oliver, 1999). A satisfied customer is likely more loyal and will repurchase a product. On the other hand, a dissatisfied consumer will likely discontinue or find a substitute product.

ECT asserts that a consumers' willingness to purchase a product/ service is greatly influenced by a prior experience (Anderson & Sullivan, 1993) . Service delivery quality from a customer's perspective is dependent on experience and expectations (Mwangi, 2010). Customers who have a good experience will likely not see flaws. However, when experiences fall short of expectations dissatisfaction occurs (Lahtinen & Isoviita, 1994). Abd-El-Salam et al. (2013) are of the view when a customer compares performance it is indicative of whether they are satisfied or not. Customer satisfaction indicates to a degree what a consumer believes an item/service would cause a positive feeling and is considered a psychological state of emotion (Johnson & Karley, 2018). Customer satisfaction is either: transaction specific satisfaction and cumulative satisfaction and can be influenced by various factors such as perception of products, pricing and quality of service.

Based on this theory, a firm can increase customer satisfaction by increasing perceived performance of a service / product or minimizing expectations. The effect of disconfirmation on satisfaction is greatly arguable. Researchers suggest that other standards such as equity, ideals, desires and brand experience be considered in study of customer satisfaction. (Giese & Cote, 2000). At the point of signing policy contracts, the insured is aware of service levels, and this becomes the threshold of their expectations. This theory is relevant to the study since it explains the role of meeting customer expectations during the claims process, and how this affects customer retention and more so company image.

2.3 Digitalization and Service Delivery

Digital transformation changes how people do things. To remain relevant in an era of technological advancement organizations can tap into benefits offered by digitalization (Schaible & Bouée, 2015). Claim processing ordinarily takes a couple of days since documentation to support it needs to be compiled, reviewed and assessment done. There is need for insurers to enhance claims processing through use of modern claims systems aligned with document management and business intelligence that improve claims processing efficiency and effectiveness (Yusuf et al., 2017). Digitalization of the claims process from end-to-end ought to focus on the customer needs, while at the same time enhancing the back-end processes to result in simple and fast claim service.

With technological advancements, customers today can enjoy quicker service and convenience. Self-service portals accelerate access to information needed by insureds for example comparison of covers, quotations, support from client service representatives, and sharing relevant updates on products or developments by the company (OECD, 2017). In addition, are claims portals which allow insureds to purchase policies, renew and initiate claims. These portals also allow for tracking of progress of claim processing in real time. Availing customers with information throughout the claims journey allows for transparency on what happens next therefore providing a sense of control.

Information Technology is an enabling tool for firms seeking to make their operations effective. In the recent years, more examples of self service and automated service

solutions have emerged. Insurers can now shift simple and routine tasks to brokers, agents or the customer themselves for example, through multichannel FNOLs, scheduling repairs or loss assessment. Robotic Process Automation, also referred to as software robotics solutions can gather data from different applications and move it to a core system, generate reports, integrate with workflow automation and use artificial intelligence (AI) to improve bot capabilities. Chatbots, an RPA tool, can customize product recommendations thus enhancing customer experience. The claims process from FNOL can also be streamlined, delivering great value to a firm and its customers. Customer relationship management systems can also enhance customer support in the event of queries or complaints. Claims handlers are then freed to focus on other value additional aspects, as opposed to mindless entries and paperwork (Deane, 2019).

Artificial Intelligence (AI) uses machines to simulate human intelligence. It has been driven by technological advances, shift in customer expectations, especially for millennials who expect quick on-demand services (Commbox, 2021). InsurTech start-ups also are making use of AI to streamline operations, develop underwriting models, enhance claims management, and improve customer service (Eckert & Osterrieder, 2020). COVID-19 has certainly accelerated the need for insurers to digitalize. IoT sensors and data-capture technologies can access loss upon occurrence, and at the same time trigger repair services for instance in auto insurance claims. Through AI, firms can focus on risk prevention, monitoring and mitigation. Because of advanced processes, AI can enhance customer experience during claims' recovery (Eling & Lehmann, 2018; SCOR, 2018; Hall, 2017).

Use of devices integrated through the Internet has increased (Wierse & Riedel, 2017), connected wearables, smart systems and devices making IoT increasingly relevant (Capgemini, 2019). IoT allow in data mining from customers. This can contribute significantly to fraud detection and improved data quality (Karkouch et al., 2016) and ultimately enhance pricing of insurance products. Insurers can work with clients to prevent claims and also use available platforms to acquire customer feedback hence continually improving service.

Cloud computing services enhance storage capacities and make it possible for sharing of resources across companies / industries (Sedkaoui, 2018). This is done through

service delivery models such as Database, Platform, Software, and Infrastructure as a Service (DBaaS, PaaS, SaaS & IaaS), contributing to lower costs, and enhanced customer experience and can lead to sharing of opportunities, with peers and bigger firms (Leroy et al., 2018). As such, it makes it possible for partnering between industry partners, brokers or InsurTechs. Digital integration with players in the claims' ecosystem for instance roadside assistance services, assessors repair shops, hospitals, rental car companies, law firms, police and courts also contribute in a seamless claims process for customers (Pia et al., 2018).

From the above discussion, digitalization of the claims function options provided by AI, Robotic Process Automation, IoT, claims portals, cloud computing, distributed ledger systems, machine learning and human expertise all lean towards providing an enhanced service delivery experience to customers. This is made possible through a seamless, efficient, and accurate systems because of digital transformation. As such, digitalization of the claims function plays a key role in improving service delivery to insureds and thus driving customer attraction and retention.

2.4 Empirical Review and Knowledge Gaps

Abbasi & Weigand, (2017) in their research on the impact of digitalization on organizational performance noted that financial services were expanding and making use of innovative technologies to serve customer needs better. These digital products were helping organizations improve their performance, profitability, and overall financial position. Financial institutions have heavily invested in IT with an aim to improve efficiency and performance in recent years. Outreach of 3G & 4G (and now 5G), internet and smartphones have opened access for many driving up demand for digital services.

Chepkwony (2018) in research on influence of e-business strategies noted that new insurance products can be easily disseminated to the market via digital technologies, compared to older forms on dissemination of information. Customers expect personalized services and appear more satisfied when e-business strategies are used. Some companies also noted improved performance and productivity following implementation of e-business.

Kiana (2010) in research on challenges in management of claims in Kenya noted that the claims department plays a huge role in customer service delivery. Insurance companies should formulate underwriting frameworks, since underwriting forms the building blocks in insurance operations, its impact trickles down to claims. There was need also for education to stakeholders on reporting of claims to minimize delays in claim processing. At the same time claim handlers ought to be adequately upskilled and provided with appropriate systems to increase efficiency in claims processing, reporting and fraud detection. A study by Yusuf et al. (2017) on insurance claim management concluded that there is need to improve systems used by claim handlers, which impacts on organizational efficiency of insurers and at the same time ensures complaints by clients are handled with ease thus boosting service delivery.

Murrey (2016) in research on technology adoption concluded that it ensures customer satisfaction, repurchase of products, and services, encourages customer referrals, and minimizes costs resulting from switching behavior. The key aspect in technological processes is ensuring dependability, handling the problem correctly (Mohammad & Alhamadani, 2011).

Qadeer (2013) in research on service quality and customer satisfaction in the banking industry noted that quality of service affects customer satisfaction distinctly arising from human interaction, physical environment, value, or price. To improve performance companies should remove gaps between management, employees, and customers. Through proper planning, monitoring and effective strategies to improve quality levels companies can retain existing customers and attract more customers. Gachau (2016) researched on insurance service delivery and concluded the need for management to prioritize employees' welfare and work-life quality.

Below is a summary of their research studies, findings and noted knowledge gaps:

Author & Year	Study	Findings	Knowledge Gap
Abbasi & Weigand, 2017	Influence of digital financial service on organizational performance in Netherlands	ICT has boosted support of the financial sector, encouraging institutions to increase investments in digitalization.	Study focused on organizational performance, whereas this study focuses on service delivery. Was based on secondary data.
Cherotich, 2018	Influence of e-business strategies on performance of insurance companies in Nairobi	E-business strategies are indispensable tools for insurance companies' performance.	Study focused on impact of e-business on performance, whereas this study will focus on customer service delivery in claims management.
Gachau, 2016	Customer satisfaction and insurance service delivery quality in Kenya	Management should prioritize employee's welfare and work-life quality.	Study focused on internal customers (employees) while this study will focus on external customers.
Kiana, 2010	Challenges in management of general insurance claims in Kenya	Delay in processing of claims was caused by delay in documentation, submission of investigators reports and high staff workload.	The study focused on challenges of claims management, while this study will center on digitalization of the claims function.
Murrey, 2016	Effects of technology adoption on customer loyalty: A case study of commercial banks in Uasin Gishu County	Reliability of technological devices ensures customers satisfaction.	The study was based on the banking sector, not insurance. It was also a case study thus might not be inferred to other sectors.
Qadeer, 2013	Service Quality & Customer Satisfaction: A case study in Banking Sector	Results revealed that service quality does affect customer satisfaction. Also, more employee-oriented policies need to be put in place.	The focus was broadly on service quality and customer satisfaction – whereas this study focuses on digitization and how it impacts on service delivery.

From the studies, the aspects of service delivery, customer satisfaction, impact of e-business on performance and claims management in insurance companies were discussed. However, the impact of digitalization in specifically the claims function of insurance companies on service delivery does not come out clearly. This research aims to fill the knowledge gap in identifying the effects of digitalization of the claims function of service delivery of insurance companies in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides the methods used in the study. It encompasses the design, target population, data collection techniques, data analysis and presentation of results.

3.2 Research Design

The study used a descriptive survey design. Descriptive studies answer "what is", therefore observation and survey are commonly used to in data collection (Borg & Gall, 1989). Descriptive survey is preferred while conducting social science research as it explains the conditions and minimizes chances of bias in data collection (Kothari, 2004). Descriptive survey research describes a phenomena or characteristics including abilities, opinions, or behavior. (Schindler & Cooper, 2008). Surveys are a common descriptive research used to ask people about their opinions, experience and beliefs thus this design was appropriate in collecting information about claims processes and service delivery from claims managers and handlers in insurance companies.

3.3 Target Population

The target population is "the entire aggregation of respondents that meet the designated set of criteria" (Burns & Groves, 1997). This included all 56 insurance companies in Kenya as at end of 2021 (IRA, Insurance Regulatory Authority, Kenya, 2021) (Appendix I). The population was a census because the size of population was typically small thus making it reasonable to include the entire population, reducing bias that might result from sampling.

3.4 Data Collection

A structured questionnaire (Appendix II) with open and close ended questions was used in data collection on web-based platform Google forms. A Likert scale was incorporated in the questions to allow respondents to choose an option that mirrors their view. A link of the questionnaire was sent on e-mail to the claims managers or claims handlers in

respective insurers, and calls were made to follow up on respondents thus increasing response rates. For a few companies where the researcher was unable to get contacts, walk ins to the specific offices were done.

3.5 Data Analysis

Data analysis was done through use of descriptive statistics (measures of central tendency and variation). Simple regression analysis was also done in SPSS to analyze the relationship between the independent and dependent variables, as below:

$S = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e_i$

Where:

S is service delivery (the dependent variable) in insurance claims process because of claims digitalization

α is the Y-intercept (constant term)

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6 =$ Slope parameters

$X_1 =$ Self-Service tools

$X_2 =$ Claims process automation

$X_3 =$ Digital integration with claims ecosystem

$X_4 =$ Back-end claims management

$X_5 =$ Audit controls

$e_i =$ error term

Data was exported to Excel and interpreted using frequencies and percentages. The results were then presented through tables and charts. Analysis was done using SPSS a software for statistical computing and graphics.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This chapter presents data findings, analysis, and presentation. The data was analyzed using Excel and SPSS. Interpretation was done using descriptive and inferential statistics using measures of central tendencies, dispersion, and regression analysis. The target respondents were claim managers or handlers in the respective 56 companies. Out of the targeted companies, responses were received from 43 companies, reflecting a response rate of 76% which is considered very good according to Mugenda & Mugenda (2003).

4.2 Demographic Outlook

Demographics was based on the number of staff in the claims department as well as their average working experience as reflected in Table 4.1.

Table 4. 1:   Number of Staff

Range	Frequency	Percentage
1 - 10	22	51%
11 - 20	14	33%
21 - 30	2	5%
31 - 40	4	9%
41 - 50	1	2%
Total	**43**	**100%**

Source: Research data

Most companies had 1-10 employees (49%), followed by 11-20 employees (35%). These two contributed to a significant figure, showing that majority of companies have staff between 1 and 20. A few companies had staff numbers of between 31 to 40 reflecting 12% and the least being 21 – 30 being 5%. From the above findings, it was noted that many companies maintained small numbers in their claims departments. However, this is relative and dependent on many micro factors varying from company to company e.g., size of business received, or policies issued, number of branches, segregation of classes of business etc.

From Table 4.2 and Figure 4.1 below, 67% of companies have staff with working experience of 5 – 10 years. This implies that majority of staff on insurance companies claims departments have a workforce that understands the claims management relatively well.

Table 4. 2:   Average Working Experience

Average working experience	Companies	Percentage
Less than 5 years	9	21%
5 to 10 years	29	67%
11 to 15 years	5	12%
Above 15 years	0	0%
Total	**43**	**100%**

Source: Research data

Figure 4. 1:   Staff Experience
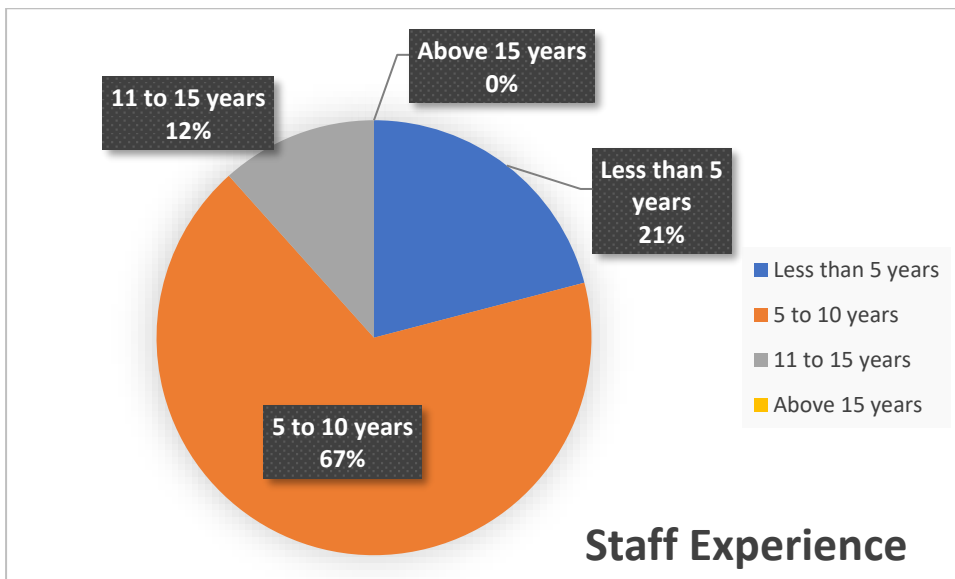
Source: Research data

4.3 Claims Information

The study sought to establish information on the claims process of insurance companies. The goal was to determine the duration of time taken to process claims, numbers of claims received, the extent of claims digitalization and finally avenues used in claims intimation.

Table 4.3 details the average number of claims received each year by insurance companies.

Table 4. 3:   Number of Claims

Range	Count of Claims	Percentage
0 - 5000	33	77%
5001 - 10000	4	9%
10001 - 20000	3	7%
Above 20000	3	7%
Total	**43**	**100%**

Source: Research data

Out of the responses received, it was evident that a greater percentage of claims received in insurance companies fall between 0 – 5,000 representing 77%, followed by 5,001 – 10,000 representing 9% and finally 7% of claims being 10,001 – 20,000 and another 7% being above 20,000. Worth noting also are outliers especially presented by medical companies with an average number of 558,000 against the median of 5,000.

Table 4.4 and Figure 4.2 show findings of how long insurance companies take to process claims which are fully documented.

Table 4. 4:   Processing Time

Duration	Count	Percentage
Within a week	22	51%
Within a month	16	37%
Within three months	4	9%
Within six months	1	2%
Within a year	0	0%
More than a year	0	0%
Total	**43**	**100%**

Source: Research data

Figure 4. 2:   Duration of Claims Processing
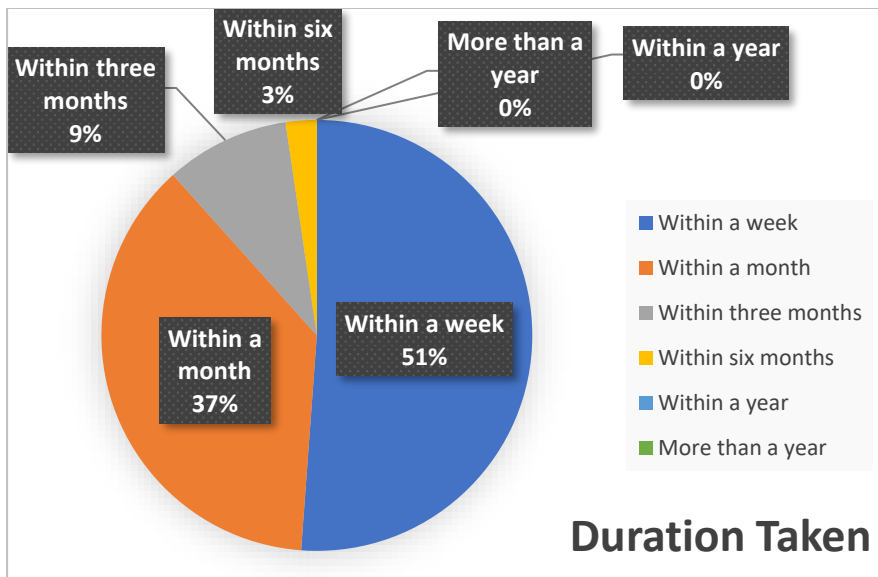
Source: Research data

From the findings, it was clear that most insurance companies settle their claims, once fully documented, within a month – reflecting a total of 88%. The other companies settle between a month and six months reflecting 12% in total. This means that a claimant would on average wait close to a month to have their claim, once fully documented, settled. Such delays could cause inconveniences to customers, business interruption, lack of peace of mind, cash flow disruption, interests accrued etc.

Figure 4.3 shows findings of the extent of claims digitalization of insurance companies.

Figure 4. 3:   Extent of Claims Digitalization
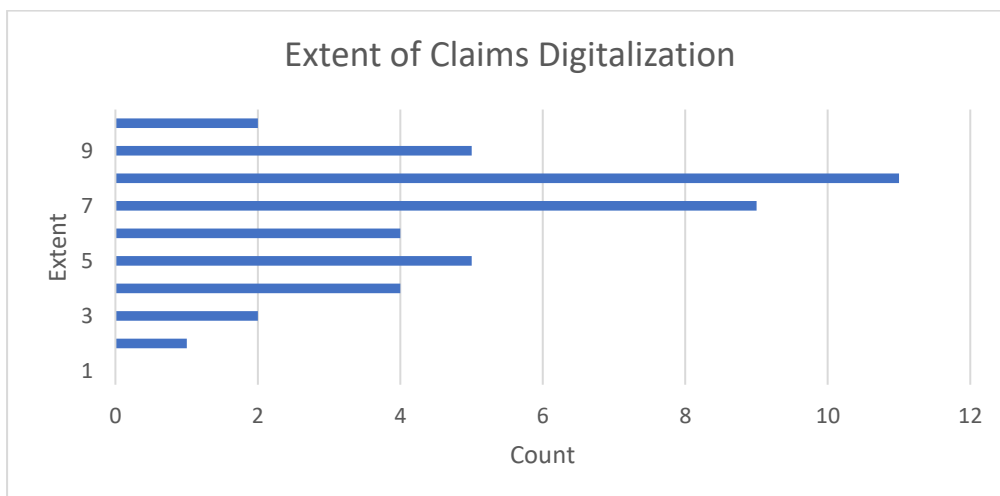
Source: Research data

From the findings, most insurance companies indicated a generally high extent of digitalization with 72% respondents selecting 6 to 10 on the scale, whereas 28% showing 5 and below. The scale was such that 0 would mean no digitalization at all, while 10 would indicate great extent of digitalization. The findings imply that extent of claims digitalization varies across companies.

Figure 4.4 presents findings on the modes that insurance companies have availed to their insureds to intimate claims.

Figure 4. 4:   Mode of Claim Intimation
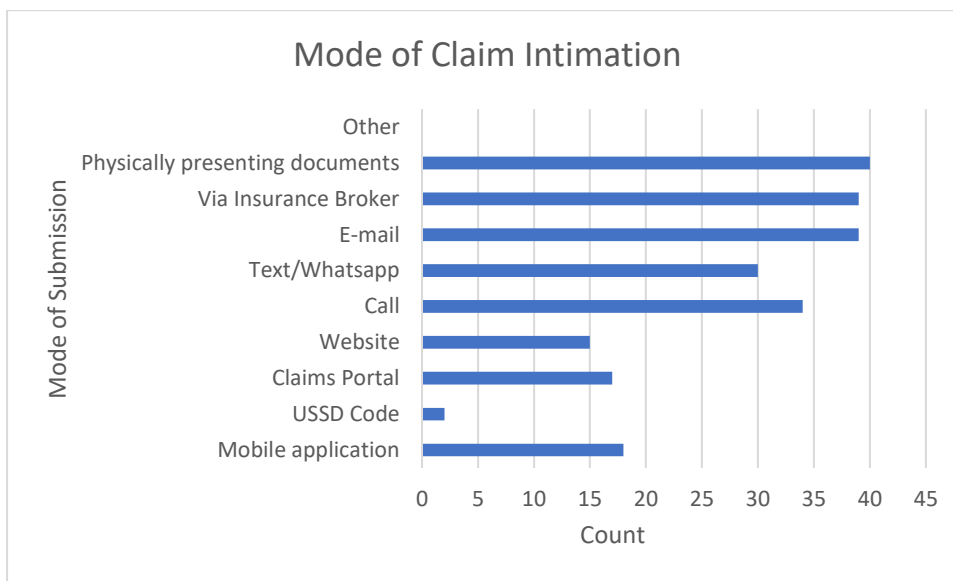
Source: Research data

It was noted that majority of insurance companies receive claims through physical presentation, insurance brokers, e-mails, calls, and text/WhatsApp. From these it appears that physical presentation of files, use of broker and e-mails were most preferred garnering 90% of responses. Minority of companies use websites, portals, USSD codes or mobile applications, meaning that self-service tools have not been incorporated extensively in the claims process. This means that customers do not get control to intimate claims and keep track of the claims process. On any issue the customer would have to call the claim handlers or support team thus reducing their efficiency and impacting on service delivery. No comments were made on Other indicating that the list of options shared was conclusive.

Descriptive Statistics

A Likert scale was used to determine responses, with 1 being strongly disagree, 2 being disagree, 3 being neutral or unsure, 4 being agree and 5 strongly agree. A mean rating of 3.5 was considered significant and standard deviation of less than 1 indicated congruence of views among respondents while greater than one showed varied views of respondents.

4.4 Digitalization of Claims Management

This section sought to find out how digitalized the claims process was. The section focused on five aspects that imply digitalization namely, self-service tools, claim process automation, digital integration with the claim ecosystem, back-end claims management and audit controls.

4.4.1 Self Service Tools

This section sought to establish how insurers have incorporated self-service tools for their customers within the claims process.

Table 4. 5:   Self Service Tools

Statement	Mean	Standard Deviation
Customers can report claims directly from their devices	3.79	1.166
Customers can notify us of claims directly without involving an intermediary	4.23	0.971
Customers can monitor the position of their intimated claims	3.62	1.091
Customers are well informed of relevant information throughout the claims process	3.95	1.132
Customers are aware of documentation required to report a claim beforehand, as well as the policy terms and conditions	3.93	1.142
Mean Scores	**3.90**	**1.100**

Source: Research data

The findings in Table 4.5. indicate that many companies have provisions for customers to report claims directly from devices. This could largely be attributed to E-mails which

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had a great popularity followed by calls, texts, and WhatsApp. Modes such as USSD, claims portal, website despite being easily accessed by customers via their devices do not contribute to this response considering that a very small percentage of intimation was done via these platforms, as reflected in Figure 4.4. Claimants have direct access to the insurer, as indicated by how many customers can directly intimate claims without use of intermediaries, agents, or brokers. This is indicative of open channels of communication of insurance companies with their clients, implying that the length of time a claimant waits to be served is shortened. In many companies, ability of insureds to monitor position of their intimated claims varied largely with a mean of 3.63 with many responses being generally distributed. This could be because of inexhaustive use of self-service tools in many companies which limits customers' access to workflow to monitor position of their claims.

Regarding how well informed of relevant information during the claims process the responses were at 3.95 meaning that clients do not experience the back and forth with insurers asking for one document after another. This enhances service delivery and reduces time taken during processing. Many respondents indicated that clients were aware of documentation required to report a claim. The general outlook indicated that customers were well informed about the necessary documents needed to report a claim before a loss occurs, therefore insurers may not use this to prolong the intimation process.

In general, self-service tools had a mean of 3.90 with standard deviation of 1.100 representing a moderately high level of use of self-service tools but also widely spread indicating this might not be the case for all insurers. This implies that customers have access to information and can intimate claims on their own with ease in some of the companies, therefore giving them a sense of control and thus positively impacting service delivery, whereas this might not be the case in some companies.

4.4.2: Claims Process automation

This section was aimed at finding out the degree of automation of the claims process within insurance companies.

From Table 4.6 many respondents acknowledged that the claim process is automated though not fully. This was also mirrored in responses of whether he claims process is end-to-end. This implies that many companies have embraced claims automation,

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though implementation has not been fully done meaning there could be bottlenecks in the service delivery to claimants caused by manual work. On the case of integration of systems majority agreed with the statement with mean of 3.76. Integration of systems makes processes seamless and reduces time taken to review claim cases and make approvals. Regarding minimal paperwork, many respondents agreed with the statement with mean 3.44. This can be attributed to claims automation not being fully implemented. Automation reflects heavily on paperwork during the claims process as these responses are correlated. Ability to generate reports by the system was largely accepted with mean 3.83. Reporting capabilities of any claims system is instrumental in keeping track of whether SLA targets are met. On the matter of payments, responses appeared to be varied and almost equally distributed with no weight given to any option. It appears that even when the claims processing may be generally automated, the payments are not necessarily automated thus could cause delays in settlement of claims.

The general response on claims automation reflected a moderate mean of 3.49 with standard deviation of 1.209 which implies that on average claims automation in insurance companies has not been fully implemented. The high standard deviation indicated that the responses varied greatly amongst the respondents.

Table 4. 6:   Claim Process Automation

Statement	Mean	Standard Deviation
The claims process is fully automated	3.37	1.024
The claims process is end-to-end i.e., no steps are done off-system	3.34	1.325
The claims system is integrated with underwriting, legal and payment processes etc.	3.76	1.13
Manual work / paperwork during claims processing is minimal/ non-existent	3.44	1.24
The claims system can generate reports to monitor KPIs (Key Performance Indicators)	3.83	1.252
Payments of claims are automated	3.2	1.282
Mean Scores	**3.49**	**1.209**

Source: Research data

4.4.3: Digital Integration with Claims Ecosystem

This section sought to establish how insurers have integrated with the claim's ecosystem.

Table 4. 6:   Digital Integration with Claims Ecosystem

Statement	Mean	Standard Deviation
A panel of third-party service providers is present	3.81	1.239
Customers have access / contacts of these third-party service providers	3.34	1.251
Arbitration frameworks are present, thus avoiding extended / protracted litigation	3.69	1.08
Mean Scores	**3.61**	**1.190**

Source: Research data

According to Table 4.7 many insurers appear to have a panel of third-party service providers within the claims process with a mean response of 3.81. This is indicative that there is a panel of third-party service providers that insurers or claimants can engage in the event of a loss. This makes the claims process quicker and seamless thus enhancing service delivery. Regarding whether insured's have access or contacts of these service providers, the responses were generally spread out with mean of 3.34, but generally majority agreed that customers had access /contacts of the third-party service providers. Arbitration frameworks are present with a moderate response of 3.69.

As per above findings, the issue of digital integration with claims ecosystem had a mean of 3.61 and standard deviation od 1.190 reflecting moderate implementation. Despite not being fully implemented; a good number of companies have taken steps toward digital integration with third party service providers. This ideally would make the claims process seamless particularly for the claimants, open communication channels and reduce time taken through litigation thus boosting service delivery.

4.4.4: Back-end claims management

This section sought to establish the state of claims management from the back end.

Table 4. 7:   Back-end Claims Management

Statement	Mean	Standard Deviation
The insurance policy terms are strictly adhered to in the event of a loss	4.3	0.887
Service level agreements are defined for the claims process in the company claims manual	4.25	1.002
Claims are settled on a first come first pay basis	3.74	1.236
Claims handlers can process claims with ease because of periodic training and upskilling	4.23	0.996
Mean Scores	**4.13**	**1.030**

Source: Research data

The responses as per Table 4.8 indicated that for most companies, insurance policy terms are adhered to in the event of a loss, with mean 4.3. Policies detail agreement between insurers and their insureds. In the event of a loss, adherence to these terms builds trust. Regarding whether service level agreements are defined in the claim's manual the mean response 4.25. Service level agreements are internal timelines set for various processes. Adherence to these timelines ensures that customer service is enhanced, and delays minimized. Most companies appear to prioritize settlement of claims based on when reporting was done, on a first come basis with mean of 3.74. Finally, for most companies, claim handlers can process claims with ease following upskilling and training with mean of 4.23. Continual upskilling and training exposes claim handlers to emerging issues and enhances knowledge in their field. This means claims can be processed faster and with better analysis.

From the foregoing, for most companies, the back-end claims management appeared to be good, reflecting mean of 4.13 and standard deviation 1.030, with policies having been set up guiding claims processing, service level agreements indicating how long claims can take before payment and frequent training and upskilling of claim handlers to build capacity and enhance service delivery. This implies that enhanced back-end

management of claims has a direct effect on service delivery. Since the standard deviation was greater than one, this implies that the responses received varied greatly with extremes meaning that the mean responses might not be a reflection of the situation for each company.

4.4.5: Audit controls

This section was focused on audit controls that insurers have in their claims process.

Table 4. 8:   Audit Controls

Statement	Mean	Standard Deviation
There is a policy that details how claims are to be managed	4.25	0.902
Claims are processed following set out guidelines	4.21	1.059
Authorization limits	4.28	0.959
There is a maker-checker control (segregation of roles)	4.28	1.031
Mechanisms to minimize fraud have been incorporated within the claims process	4.37	0.900
Mean Scores	**4.28**	**0.970**

Source: Research data

The responses as per Table 4.9 indicated that for most companies, there exists a policy that details how claims are to be managed with mean of 4.25. The responses indicated that for most companies, authority limits on how much each handler can approve / process are pre-set. In most companies, there is a maker checker in that one person cannot process, approve, and pay a claim. Finally, regarding whether mechanisms to minimize fraud have been incorporated in the claims process the mean was 4.37 which is high.

From the above, for most companies, audit controls have been incorporated and enhanced in the claims processes with mean of 4.28, therefore minimizing leakages occasioned by fraud. While protecting insurers, this also protects the insureds as in ensures continuity of insurance companies and ultimately protection of insured's interests. In addition, internal controls ensures that claims are processed within set frameworks thus ensuring that service delivery is closely monitored to ensure

customers are served well. The standard deviation was 0.970 indicating congruence in views of respondents.

Table 4. 9:   Summary of Claims Digitalization

Independent Variables	Mean	Standard Deviation
Self Service Tools	3.90	1.100
Claim Process Automation	3.49	1.209
Digital Integration with Claims Ecosystem	3.61	1.190
Back-end Claims Management	4.13	1.030
Audit Controls	4.28	0.970
Mean scores	**3.88**	**1.010**

Source: Research data

In summary of this section, the claims digitalization aspect is relatively high with mean of 3.88. The standard deviation was 1.010 implying that responses varied greatly hence in as much as some companies have digitalized their claims' function, some may have not. When the claim function is digitalized the time and effort taken to receive, review, analyze, process, pay and archive a claim is greatly minimized. This means that a customer is served within acceptable timelines and is made aware of any developments during the claims process thus significantly boosting customer experience.

4.5 Customer Service Delivery
4.5.1: Customer Satisfaction

The responses in Table 4.11 indicated that for many companies, complaints from customers were minimal with mean 3.72. For most companies there is a dedicated customer service team that handles complaints with mean response being 3.79. As much as there could be a dedicated team or system to handle customer complaints in majority of the companies, this is not the case in others. Tracking is done on how long claims processing takes had mean of 4.02 which is quite high. Most companies offer value addition services to their clientele with mean of 3.7 and companies settling claims on commercial consideration basis had mean of 3.95.

In summary, customer satisfaction in the claims process was relatively moderate presenting mean of 3.84 and standard deviation of 1.083. On average the means are

above 3.5 and standard deviation above 1 presenting strong indication that there were varied responses despite the strong indication that customer satisfaction is high.

Table 4. 10:   Customer Satisfaction

Statement	Mean	Standard Deviation
Customer complaints are minimal	3.72	0.854
There is a customer service software / dedicated customer service team present to handle customer issues	3.79	1.245
The time taken for claims processing from document submission to settlement is closely monitored and assessed based on pre-set KPIs	4.02	1.080
We offer value addition on our services to our customers	3.7	1.124
Claims can be settled on commercial consideration/ ex-gratia basis	3.95	1.112
Mean scores	**3.84**	**1.083**

Source: Research data

4.5.2: Customer Experience

Table 4. 11:   Customer Experience

Statement	Mean	Standard Deviation
First Response Time	3.95	1.112
Digital Self- service tools are available for customers to lodge claims and track their progress	3.11	1.400
Customer reviews on their claims experience is periodically sought, assessed, and implemented	3.79	1.081
Customer service training is done periodically to the staff	4.06	1.055
Mean scores	**3.73**	**1.162**

Source: Research data

According to Table 4.12, most companies acknowledge claim intimation within the same day. Regarding whether digital self-service tools are available, the responses were

low, implying that self-service tools are not widely available, and it mirrors responses in earlier section on how customers intimate claims – claims portal, website and mobile app were not very popular. This would mean that once a customer lodges a claim, they have little knowledge on what has happened to it. Many companies seek reviews from customers periodically with an aim of improving service. However, more needs to be done when it comes to engaging clients to get a feel of how services they received during the claims process were. Many respondents acknowledged that training to claims handlers on customer service was done periodically.

On average, the mean response was 3.73 which was above the average mean hence indicative of a fairly good customer experience. Standard deviation was 1.162 indicating high variation in responses implying that as much as customer experience in many companies is good, more can be done to enhance experience in the other companies.

4.5.3: Customer Loyalty

Table 4. 12:   Customer Loyalty

Statement	Mean	Standard Deviation
Majority of new customers have been referred by other existing customers	3.72	0.934
Majority of our customers renew their policies after expiration of the initial term	3.87	0.941
Mean scores	**3.80**	**0.938**

Source: Research data

The responses on Table 4.13 indicate that in most companies, majority of customers have been referred by existing customers and renew their policies upon expiry. On average the mean response was 3.80 with standard deviation of 0.938 implying a high level of customer loyalty with congruence in views of respondents. When digitalization of the claim function occurs, customers are served better and seamlessly thus enhancing service delivery and ultimately loyalty of customers.

Table 4. 13:   Summary of Customer Service Delivery

Dependent Variable	Mean	Standard Deviation
Customer Satisfaction	3.61	1.190
Customer Experience	4.13	1.030
Customer Loyalty	4.28	0.970
Mean scores	**4.01**	**1.063**

Source: Research data

In summary of this section, as represented in Table 4.14, it appears that in most companies, customer service is digitalized, with mean response being 4.01 which is higher that the significant mean in this study. However, the standard deviation 1.063 reflecting high variation in responses. This implies that in as much as many companies have a good customer service delivery, for some companies it could be poor.

Regression Analysis

4.5.3: Relationship between Claims Digitalization and Service Delivery

A simple regression model was used to establish the relationship between claim digitalization (predictor variables) and service delivery (dependent variable). Using R, the resulting correlation coefficients have been used to show the average increase in response variable, when one unit of the predictor variable is increased assuming all the other variables are held constant. The error term specified variations not explainable by the model.

Table 4. 14(a):   Model Summary

Model	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
				F-change	DF1	DF2	Kruskal Wallis p-value
1	0.939	0.9186	93.14	46.16	3	4	0.00244

Source: SPSS Research Data

a. Predictors: (Constant), Self-service tools, claim automation, integration with claims ecosystem, back-end claims management, audit controls.
b. Dependent variable: Service delivery

The coefficient of multiple determination (R^2) is 0.9186 showing that the regression line is a good fit, explaining 91,86% of variation in service delivery following claims digitalization. The p-value is 0.00244 which is less than significance level of 0.05 thus indicating that the regression model fits the data and effect of claims digitalization on service delivery is significant at 5% confidence level.

Table 4. 15:   ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	400,423	1	400,423	46.16	0.00652
	Residual	26,025	3	8675		
	Total	426,448	4	409,098		

Source: SPSS Research Data

a. Predictors: (Constant), Self-service tools, claim automation, integration with claims ecosystem, back-end claims management, audit controls
b. Dependent variable: Service delivery

As depicted in Table 4.16, the probability corresponding to F-Value of 46.16 is 0.00652 which is less than alpha level of 0.05 therefore the predictor variable (digitalization of claims function) is statistically significant.

Table 4. 5(c):   Model Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	z	Sig. p-value	95% Confidence Interval	
		Beta	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)[a]	0.45760	0.15755		-1.4130	0.3920	-0.57350	0.95340
	Self Service Tools	0.11664	0.18617	0.120689	0.6300	0.5310	-0.24825	0.48153
	Claim Process Automation	0.89713	0.21644	1.019742	4.1400	0.0001	0.47291	1.32135
	Digital Integration with Claims Ecosystem	0.07199	0.17164	0.080558	0.4200	0.6750	-0.26441	0.40840
	Back-end Claims Management	0.44465	0.20858	0.405643	2.1300	0.0330	0.03584	0.85345
	Audit Controls	0.67570	0.25042	0.616431	2.7000	0.0070	0.18488	1.16652

Source: SPSS Research Data

a. Dependent variable: Service delivery

The results in Table 4.17 indicate that not all predictor variables had a significant impact on customer service delivery of insurance companies in Kenya. This is because the p-values for three variables: claims process automation, back-end claims management and audit controls had p-values less than 0.05 hence indicating statistical significance, whereas digital integration with claims ecosystem and self-service tools had p-values greater than 0.05. This may be attributed to the fact that self-service tools have generally not been incorporated into the claims management of many companies. On digital integration with the claims eco-system the results could be due to many customers dealing directly with their insurer who they would engage mainly in the event of the claim, then the insurer deals with the necessary third parties.

The most influential variable is claims automation with the highest regression coefficient of 0.8971, followed by audit controls 0.6757, back-end claims management at 0.44465, self-service tools at 0.11664 and least being digital integration with claims ecosystem at 0.07199.

As per the generated results, the equation $S = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e_i$

Where:

S is service delivery in insurance claims process because of claims digitalization

$X_1 =$ Self-Service tools

$X_2 =$ Claims process automation

$X_3 =$ Digital integration with claim ecosystem

$X_4 =$ Back-end claims management

$X_5 =$ Audit controls

$e_i =$ error term

becomes:

$S = 0.45760 + 0.89713 X_2 + 0.44465 X_4 + 0.67570 X_5 + e_i$

having struck out the non-significant variables - Self-Service tools and Digital integration with claim ecosystem.

4.6 Discussion of Results

The study findings indicate a nearly perfect positive relationship between digitalization of the claims function and service delivery of insurance companies in Kenya. This is supported by a high coefficient of multiple determination(R^2) of 0.9186. The p-value of 0.00244 is within the acceptance region of ($p \leq 0.05$) indicating that the effect of claims digitalization on service delivery is significant at 95% confidence level. The level of claims digitalization is high with a mean score of 3.88 implying that many companies have made steps toward digitalization of their claims function. However, given the high spread presented by the standard deviation of 1.010 the responses appear to be varied. Customer service delivery presented a mean score of 4.00 which is considerably high, and a standard deviation of 1.063, which again shows that responses were varied despite the strong indication of good service delivery.

In summary, the findings above are in line with literature review on the subject. In as much as the studies reviewed were not focused primarily on the impact of claims digitalization on service delivery, they captured some aspects of digitalization and or service delivery. Kiana (2010) in research on challenges in management of general insurance claims in Kenya noted the importance of the claims function in insurance companies' operations and need for claim handlers to be adequately upskilled and provided with appropriate systems to increase efficiency in claims processing, reporting and fraud detection. This agrees with research findings which show that digitalization of systems enhances efficiency in claim process. The findings on relationship between claims digitalization and service delivery equally support study by Yusuf et al. (2017) on insurance claim management which concluded that there is need to improve systems used by claim handlers ensuring that complaints by clients are handled with ease thus boosting service delivery. The findings also agree with Murrey (2016) who concluded that technology adoption enhances customer satisfaction, repurchase of products, and services, encourages customer referrals, and minimizes costs resulting from switching behavior.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents findings, conclusions arrived at from the study and recommendations on how improvement can be done to enhance service delivery in insurance companies because of claims digitalization.

5.2 Summary of the Findings

The objective of the study was to find out the impact of claims digitalization on service delivery of insurance companies in Kenya. The outcome of the study revealed that many companies had a high level of claims digitalization, with low incorporation of self-service tools for customers whereas use of e-mails, intermediaries and calls were common in claim intimation indicating that the level of control and awareness of the workflow processes were limited. Insureds also appeared to have direct access to their insurers without needing to use intermediaries. The study also found that customers have access to information during the claims process as well as necessary documentation required to notify insurers of a loss. Regarding claims automation, the research findings indicate that slightly above half of respondents indicated that their claims process was fully automated. This mirrored closely with findings on an end-to-end process that was integrated with other sections of the claim's process, reporting on key performance indicators and automation of payments. This indicated that more needs to be done by insurance companies regarding automating their claims systems to create a seamless process to enhance service delivery.

The claims process is largely linked to other service providers forming an ecosystem, with integration with these being low. It appears that several companies have taken steps toward digital integration with service providers. The goal of this is to make it seamless for an insured, where they have help needed at any step during the claims process at the touch of a button. From the findings, it was clear that for most companies, the back-end claims management is good with policies having been set up guiding claims processing, service level agreements indicating how long claims can take before payment and

frequent training and upskilling of claim handlers to build capacity and enhance service delivery. Finally, audit controls have been incorporated and enhanced in the claims processes, therefore minimizing leakages occasioned by fraud. While protecting insurers, this also protects the insureds as in ensures continuity of insurance companies and ultimately protection of insured's interests.

With regards to customer service delivery, the study established that majority of companies have a customer service software / dedicated customer service team present to handle customer issues, time taken to process claims is closely monitored against pre-set KPIs, settlement of claims on commercial consideration can be done and that value addition services are availed to customers. It is apparent that a lot might need to be done in this area for some of the companies, with customer tailored services that enhance service delivery before, during or after the claims process. In addition, review on service delivery was periodically sought and suggestions implemented with an aim of improving service .This generally implied that as much as customer experience in majority companies is good, more can be done to enhance experience in some companies. On customer loyalty, the number of those unsure was relatively high meaning there is need to get this information from customers or records to access loyalty and improve areas that cause customers to switch.

The research findings, following regression analysis affirm that service delivery is largely dependent on claim digitalization with automation of claims, audit controls and back-end claims management being the most significant aspects. Self-service tools and digital integration with claims ecosystem were least significant in as much as had a positive impact.

5.3 Conclusion

The outcome of the study establishes a relationship between claims digitalization and service delivery in insurance companies. The five main components of claims digitalization were self-service tools, claims automation, integration with claims ecosystem, back-end claims management and audit controls. Out of these, claims automation appeared to be most influential variable, and audit controls the least influential with respect to service delivery in insurance companies of Kenya.

5.4 Recommendations

Digitalization of the claims process is key in enhancing service delivery to consumers. In majority of companies, steps have been taken toward claims digitalization, but it is evident that more could be done, in order to enhance customer service and reduce time taken in claims processing. Insurance companies can explore availing self-service tools to their insureds such as portals, mobile applications or websites that would give them a greater sense of control and knowledge of the claims process in the workflow. Claims automation can be enhanced and made end-to-end to minimize paperwork. Integration between systems can also be done making it possible to report and act on Key Performance Indicators on service delivery. With the claims eco-system, companies can develop databases of these and avail them to their customers such that in the event of a loss, a customer is aware of who to reach out to. Trainings to staff on claims management could also be enhanced to build capacity, and policies set on claims management and service level agreements that define how long claims processing of claims take. To minimize leakages, insurance companies can enhance implementation of authorization limits as well as maker checker controls thus protecting both parties.

On customer service, insurance companies can implement customer service systems or dedicated teams to handle customer complaints. Tailor-made value addition services can also be availed to customers in the event of a loss, before or after to enhance the experience of customers. Acknowledgement of intimated claims should be done in the shortest time possible, to make clients aware that their needs are cared for by their insurer. Feedback from customers on the claims experience should be sought periodically and recommendations implemented. Insurers can also gather information on customer loyalty from their clients or from records to keep track of how loyal customers are.

5.5 Limitations of the Study

The study sought to establish the effect of claims digitalization on service delivery of insurance companies in Kenya. Some respondents declined participation in responding to the questionnaire citing company policy to not engage in academic research, thus affecting the response rates as their input was not factored in the research findings. This limited the richness and breadth of study findings. More sensitization by relevant bodies

e.g., IRA or IKA could have been done to encourage insurers to participate and appreciate the value of such research.

Another limitation of the study was that since general and life business are very distinct given the products that they engage in and unique processes, it would have been more appropriate to conduct studies that were specifically focused on each segment to enhance richness of the study.

5.6 Implications for Policy and Practice

The study established relationship between claims digitalization and service delivery in insurance companies. As companies embrace and incorporate technologies in the claims process, customer service is enhanced thus driving customer satisfaction, acquisition, and retention. The regulator and policy makers including the individual insurance companies, Government, Insurance Regulatory Authority (IRA) and Association of Kenya Insurers (AKI) can make strategies to encourage incorporation of digital technologies within the claims process thus ensuring better service for customers. In addition, though the research was focused on the insurance industry, the findings and recommendations could also be replicated across other service industries to enhance service delivery following of digitalization of operations.

5.7 Suggestions for Further Research

The research focused on some aspects of claims digitalization and their impact on service delivery. Further studies can be conducted to test factor loadings in the model of the five aspects of claims digitalization, or other additional aspects to confirm their validity and strength with respect to service delivery. In addition, since this study focused on input from the insurers another study on the same could be carried out with a focus on customer responses.

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APPENDICES
Appendix I: List of Insurance Companies in Kenya

1	AAR INSURANCE KENYA LTD
2	ABSA LIFE ASSURANCE LTD
3	AFRICAN MERCHANT ASSURANCE LTD
4	AIG INSURANCE COMPANY LTD
5	ALLIANZ INSURANCE COMPANY LTD
6	APA INSURANCE COMPANY LTD
7	APA LIFE ASSURANCE COMPANY LTD
8	BRITAM GENERAL INSURANCE LTD
9	BRITAM LIFE ASSURANCE LTD
10	CAPEX LIFE ASSURANCE COMPANY LTD
11	CIC GENERAL INSURANCE COMPANY LTD
12	CIC LIFE ASSURANCE COMPANY LTD
13	CORPORATE INSURANCE COMPANY LTD
14	DIRECTLINE ASSURANCE COMPANY LTD
15	FIDELITY SHIELD INSURANCE LTD
16	FIRST ASSURANCE COMPANY LTD
17	GA INSURANCE COMPANY LTD
18	GA LIFE ASSURANCE COMPANY LTD
19	GEMINIA INSURANCE COMPANY LTD
20	GEMINIA LIFE INSURANCE COMPANY LTD
21	HERITAGE INSURANCE COMPANY LTD
22	ICEA LION GENERAL INSURANCE LTD
23	ICEA LION LIFE ASSURANCE LTD
24	INTRA-AFRICA ASSURANCE LTD
25	INVESCO ASSURANCE COMPANY LTD
26	JUBILEE GENERAL INSURANCE LTD
27	JUBILEE LIFE INSURANCE LTD
28	JUBILEE MEDICAL INSURANCE LTD
29	KENINDIA ASSURANCE COMPANY LTD
30	KENYA ORIENT INSURANCE LTD
31	KENYA ORIENT LIFE ASSURANCE LTD
32	KENYAN ALLIANCE INSURANCE LTD
33	KUSCCO MUTUAL ASSURANCE LTD
34	LIBERTY LIFE ASSURANCE COMPANY LTD
35	MADISON GENERAL INSURANCE COMPANY LTD
36	MADISON LIFE INSURANCE COMPANY LTD
37	MAYFAIR INSURANCE COMPANY LTD
38	METROPOLITAN CANNON INSURANCE LTD
39	METROPOLITAN CANNON LIFE ASSURANCE LTD
40	MONARCH INSURANCE LTD

41	MUA INSURANCE COMPANY LTD
42	OCCIDENTAL INSURANCE COMPANY LTD
43	OLD MUTUAL LIFE ASSURANCE LTD
44	PACIS INSURANCE COMPANY LTD
45	PIONEER ASSURANCE COMPANY LTD
46	PIONEER GENERAL INSURANCE LTD
47	PRUDENTIAL LIFE ASSURANCE LTD
48	RESOLUTION INSURANCE COMPANY LTD
49	SANLAM INSURANCE COMPANY LTD
50	SANLAM LIFE ASSURANCE LTD
51	TAKAFUL INSURANCE OF AFRICA LTD
52	TAUSI ASSURANCE COMPANY LTD
53	TRIDENT INSURANCE COMPANY LTD
54	UAP INSURANCE COMPANY LTD
55	UAP LIFE ASSURANCE COMPANY LTD
56	XPLICO INSURANCE COMPANY LTD

Source: IRA (2021) *Insurance Regulatory Authority, Licensed Insurance Companies, 2021*

Appendix II: Questionnaire

This questionnaire is aimed at collecting information from all registered insures in Kenya. Data collected will be analyzed to determine how digitalization of the claims function impacts on customer satisfaction. Information acquired is intended only for academic purposes, and discretion is guaranteed.

Section 1 of 4

Name of Insurance Company (Please note this is very confidential. It is only aimed at check response rates) *

How many staff are in the claims department? *

Long-answer text

What is the average working experience of the claims' team? *

◯ Less than 5 years

◯ 5 – 10 years

◯ 11 – 15 years

◯ Above 15 years

Section 2 of 4

On average how many claims are received in one year for all classes of business? *

Long-answer text

On average, how long does it take for a claim, once fully documented, to be settled/ paid? *

◯ Within a week

◯ Within a month

◯ Within three months

◯ Within six months

◯ Within a year

◯ More than a year

To what extent is the claims' function is digitalized? *

	1	2	3	4	5	6	7	8	9	10	
Not at all	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	Great extent

Customers can inform of / intimate a claim using the following platforms (Select as many as there are): *

☐ Mobile Application

☐ USSD code

☐ Claims Portal

☐ Website

☐ Call

☐ Text/WhatsApp

☐ E-mail

☐ Via Insurance Broker

☐ Physically presenting documents

☐ Other

Part II: Digitalization of Claims Management ⌄   ⋮

Please select your response based on the scale below:

Strongly agree − 5

Agree − 4

Neutral/unsure − 3

Disagree − 2

Strongly disagree − 1

Self Service Tools *

	1	2	3	4	5
Customers can report claims directly from their devices (portal, website, app etc)	○	○	○	○	○
Customers can notify us of claims directly without involving an intermediary	○	○	○	○	○
Customers can monitor the position of their intimated claims	○	○	○	○	○

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Customers are well informed of relevant information throughout the claims process	○	○	○	○	○
Customers are aware of documentation required to report a claim beforehand, as well as the policy terms and conditions	○	○	○	○	○

Claims process automation *

	1	2	3	4	5
The claims process is fully automated	○	○	○	○	○
The claims process is end-to-end i.e., no steps are done off-system e.g. printing a document for signing / filing	○	○	○	○	○
The claims system is integrated with underwriting, legal and payment processes etc	○	○	○	○	○

	1	2	3	4	5
Manual work / paperwork during claims processing is minimal/ non-existent	◯	◯	◯	◯	◯
The claims system can generate reports to monitor KPIs (Key Performance Indicators)	◯	◯	◯	◯	◯
Payments of claims are automated e.g. Discharge Vouchers can be acknowledged online without need to physically sign	◯	◯	◯	◯	◯

Digital integration with claims ecosystem *

	1	2	3	4	5
A panel of third party service providers eg. Hospitals, Garages, Agents, Roadside assistance, Loss Assessor's etc. is present	◯	◯	◯	◯	◯

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	1	2	3	4	5
Customers have access / contacts of these third party service providers	○	○	○	○	○
Arbitration frameworks are present, thus avoiding extended / protracted litigation (court cases) for disputed matters, where possible	○	○	○	○	○

Back-end claims management *

	1	2	3	4	5
The insurance policy terms are strictly adhered to in the event of a loss	○	○	○	○	○
Service level agreements are defined for the claims process in the company claims' manual	○	○	○	○	○
Claims are settled on a first come first pay basis	○	○	○	○	○

Claims handlers can process claims with ease as a result of periodic training and upskilling	○	○	○	○	○

Audit controls *

	1	2	3	4	5
There is a policy that details how claims are to be managed	○	○	○	○	○
Claims are processed following set out guidelines	○	○	○	○	○
Authorization limits (How much money each person can approve) are incorporated in the claims system	○	○	○	○	○

There is a maker-checker control (segregation of roles), meaning that one handler cannot process, approve and pay a claim	○	○	○	○	○
Mechanisms to minimize fraud have been incorporated within the claims process	○	○	○	○	○

Part III: Customer Service Delivery

Customer Satisfaction *

	1	2	3	4	5
Customer complaints are minimal	○	○	○	○	○
There is a customer service software / dedicated customer service team present to handle customer issues	○	○	○	○	○

The time taken for claims processing from document submission to settlement is closely monitored and assessed based on pre-set KPIs	○	○	○	○	○
We offer value addition on our services to our customers eg. advice on lifestyle management, flowers for those admitted in hospital, roadside assistance in event of a vehicle accident, trainings on risk mitigation etc.	○	○	○	○	○
Claims can be settled on commercial consideration/ ex-gratia basis	○	○	○	○	○

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Customer Loyalty *

	1	2	3	4	5
Majority of new customers have been referred by other existing customers	○	○	○	○	○
Majority of our customers renew their policies after expiration of the initial term	○	○	○	○	○

Customer Experience *

	1	2	3	4	5
Once a customer has lodged a claim, acknowledgment is given within the day (First Response Time)	○	○	○	○	○
Digital Self-service tools are available for customers to lodge claims and track their progress	○	○	○	○	○
Customer reviews on their claims experience is periodically sought, assessed and implemented	○	○	○	○	○
Customer service training is done periodically to the staff	○	○	○	○	○