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Opportunities for Reducing Expenses through Digital Innovation: The Case of an Insurance Company

Research Paper

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ABSTRACT

Operational inefficiencies not only affect the quality of a company's offerings but also increase its overhead expenses. Insurance companies have some of the highest overhead costs, which often are transferred to customers as premiums for insurance products. While companies are adopting digital innovation to reduce expenses by optimizing their operational functions, not all companies are ready for the digital transformation journey, which risks their existence. The unreadiness exists despite evidence that digital innovation has many potential benefits to these companies. Nine participants from six business units, all with 133 employees, were interviewed for this study. This research uses a single, in-depth case study of an established insurance company to show how operational inefficiencies affect customers' costs and how using digital innovation can reduce these expenses. The findings reveal that the insurer is still reliant on pre-digital methods to conduct business. This research amplifies the importance of adopting digital technologies, such as Artificial intelligence, Chatbot, Robotic Process Automation, Blockchain, and the Internet of Things into the insurance companies' processes, leading to lower operational expenses and more affordable products and services for customers.

Keywords

Digital innovation in insurance, insurance value chain, insurance product structure, insurance sales processes and costs, insurance servicing processes and costs, high insurance premiums.

INTRODUCTION

Established companies, at the cusp of the disruption caused by digital technologies, face several challenges: supporting resource allocation strategies that favor certain customers, an overreliance on existing customers for the companies' survival, and inability to tap into the low-end of the market in the face of disruptions (Christensen et al., 2018; Palmié et al., 2020). The overreliance on existing customers and failure to tap into the low-end of the market causes some of these companies to “languish” and “fail” as, by nature, disruptive technologies introduce new and “unique constellation of attributes” that are appealing to a different and often wider customer base (Christensen et al., 2018). In the insurance industry in Africa, established companies struggle to reach the low-end of the market due to their

reliance on costly legacy systems and approaches that are “centred around bricks-and-mortar branches, broker networks, and bank-based payment channels” (Deloitte, 2017). Besides this, the digitalization of services and the increasing demand for digitally designed services (Iriarte et al., 2017) have changed the insurance services and messaging expected by customers from the insurers (Larsson & Broström, 2019).

These established insurance companies’ inability to reach the low-end market implies that they cannot compete with new upcoming insurers offering digital products with highly automated processes (Griffiths, 2020; Gulamhuseinwala et al., 2015). As a result, these companies’ products and services are often priced higher, as the high expenses are incorporated in the product structure. These expenses include selling, issuing new and servicing policies, and the costs of maintaining bricks-and-mortar branches, broker networks, and bank-based payment channels (Deloitte, 2017; McGregor, 2017). Most of these companies still use traditional channels (e.g., commissioned agents) with high administration costs to onboard customers (Bashir et al., 2013). Once new customers are onboarded, ongoing policy maintenance or servicing is required (e.g., processing claims and underwriting queries), which adds time and is prone to human errors (Callaway, 2019), and more human intervention increases processing costs (Yadav & Mohania, 2015).

The expensive and not always affordable insurance products and services compound the pressure on consumers (Romley et al., 2012), often leading to frequent customer cancellation of their policies. Research has shown a direct relationship between price and demand for insurance products, as customers are more likely to choose products with lower premiums due to affordability constraints (Kruger, 2018). An Accenture report shows that 55% of South African policyholders changed insurers within three years to pay reduced premiums (Accenture, 2016). In addition to cancellations, regulators worldwide increasingly are called to arbitrate disputes related to the insurers’ high premiums. For instance, the United Kingdom’s Financial Ombudsman revealed that it received over 200 complaints per year from customers who were unhappy with their insurance premium (Wayman, 2018). The South African Ombudsman also has highlighted a trend where customers are changing insurers due to high premiums (The Ombudsman For Short-Term Insurance, 2018).

Digital innovation in the insurance industry has been touted as one way established insurers could reduce processing and coordination costs by the customer-facing processes (Stoeckli et al., 2018). The expense ratio for established insurers is between 25% and 35% compared to those of new incumbents that leverage digital technology of about 15% (Cooper 2018). Considering how expenses impact the premium, companies must perform internal processes as efficiently as possible by using digital innovation. Digital innovation involves combining digital and physical components to create new services or business models that enable products and immerse them into society for wider use (Skog et al., 2018), allowing companies to improve customer experiences and offer better products at lower premiums (Gulamhuseinwala et al., 2015).

LITERATURE REVIEW

Inefficiencies in customer onboarding and servicing activities absorb a substantial amount of an insurance company’s expenses, where acquisition and servicing costs account for up to 43% and 19% of overall monthly expenses, respectively (McGregor, 2017). In customer onboarding, companies introduce new customers to an organisation’s products and services (Klein & Polin, 2012). Customer servicing follows onboarding by providing support to customers following the sale of a product (Alireza et al., 2011). Inefficiencies in these processes result in high expenses and influence customer premiums, prompting many companies to seek new ways of doing things, such as using digital technologies for customer onboarding and services (Jayadev et al., 2017) to reduce these expenses (Cascio &

Montealegre, 2016). Efficiencies in the value chain have a significant impact on company expenses. For example, research on acquisition and retention costs shows that it cost more than five times to acquire a customer than to retain one (Calciu, 2008). Increasing efficiencies is not often easy for established companies concentrating on a large portfolio of products and for companies fraught with legacy infrastructure and processes, making it difficult to adjust to change compared to newer and smaller companies (Nair & Menon, 2017). Nair and Menon (2017) attribute smaller firms' success to their focus on executing specific tasks across the value chain better and faster (e.g., onboarding) by using technology and, therefore, adapting quickly to change. Smaller institutions can transfer the benefits and cost savings of using technologies to customers through a reduced cost for products and services (Jayadev et al., 2017) and improve many aspects of their value chain (Agolla et al., 2018).

Insurance companies' operating costs are higher than in other sectors of the financial services industry due to the nature of the products and services it offers (Shi, 2012). The core value chain activities that contribute to insurance companies' expenses include product design, marketing and sales, policy administration, claims, and asset management (Jeyakumar, 2016). Most expenses are attributed to the sales and servicing of policies and labor (McGregor, 2017). Most established insurance companies are held back by legacy ways of working, such as using brokers and agents as the primary distribution channel to sell products (Jeyakumar, 2016) and using paper-based processes for business transactions (Cooper, 2018). By using paper alone, it has been shown that companies spend up to 6% of their revenue on physical filing space, and up to 30% of overhead costs can be attributed to paper-based tasks (Chao, 2015). Paper-based approaches also hamper productivity and process efficiencies (Chao, 2015), often leading to increased costs, resources, and staffing.

Insurance companies also incur expenses on marketing activities because they often rely on costly direct marketing, such as advertising and promotions and associated expenses in human resources capacity development (Tiemann, 2019). For example, Santam, South Africa's largest short-term insurer, spent a total of R104 million in 2017 on training initiatives (Santam, 2018). Of more concern, though, most companies are unaware of their training programs' expenses and efficiencies, which, together with marketing costs, bring about complex pricing in the insurance industry, leading to high premiums to customers (Todor, 2016). It is therefore important that companies focus on using methods that are both effective and cost-efficient.

Opportunities for Reducing Expenses through Digital Technology

With the recent advances in technology, companies are now able to leverage from the latest digital innovations to, among others, achieve cost savings within their businesses (Cascio & Montealegre, 2016). For instance, digital platforms enable companies to introduce new distribution channels to reach their customers (Jeyakumar, 2016), including interactive self-service platforms (de Reuver et al., 2018) to distribute insurance products at lower costs than agents and broker channel management. These digital platforms present user-friendly interfaces that fulfill the end-to-end consumer journey that, among others, reduces costs on activities related to agent-to-client travelling (Méndez-Aparicio et al., 2017) and insurance distribution (Bashir et al., 2013). Companies are using digital technology to enhance efficiencies and reduce marketing costs (Taiminen & Karjaluoto, 2015). Compared to digital marketing, traditional marketing costs such as television, radio, and newspapers are significantly higher (Kannan & Li, 2017; Todor, 2016). Besides reducing costs, insurance companies can increase policy sales by 20% by automating marketing activities, such as scheduled social media postings and customer emails (Tiemann, 2019).

In addition to customer-based platforms, insurers use Artificial Intelligence (AI) to optimize their business processes, such as to fast-track claims processing, reduce handling errors, detect fraud, and potentially save thousands of work-hours (Hall, 2017). AI technology is also driving innovative capabilities, such as chatbots, that some insurance companies use to support their sales and customer service processes (Hall, 2017). Using these technologies has helped reduce costs and augment processes across the value chain, especially the advice processes using robotic advisers (Coombs & Redman, 2018) and reducing claims processing turnaround time by 25%-50% (Lamberton et al., 2017). It is estimated that in the US market alone, cost savings for insurance sales resulting from AI and chatbots are more than 12 billion dollars, with more being saved in other financial services (Zumstein & Hundertmark, 2018). With these cost reductions, insurers could transfer some of the cost savings to customers by offering lower premiums.

The Internet of Things (IoT) technologies, the interconnection of physical and digital resources that enable them to collect and share data (Ray, 2018), is revolutionizing the insurance industry. For instance, for health insurers, smart devices (e.g., smartwatches) that process patient data more accurately are improving patient health outcomes, thereby reducing claim costs and enhancing communication between patient and medical experts (Kelley et al., 2018). Technologies, such as Telematics, are impacting the automobile insurance industry. Instead of calculating automobile insurance premiums based on fixed contracts, insurers use real-time driving behavior data to inform customers' risk assessment (Boucher et al., 2017). Telematics devices track customer driving behavior and conditions; they allow insurers to offer user-based premiums and reduce claim costs through accurate data, potentially allowing them to lower premiums (Husnjak et al., 2015). Additionally, homes equipped with smart technologies are changing the way insurers assess and manage customer risk. For instance, sensors are used to switch off geysers and alert repair technicians when adverse conditions arise when, for example, a water leak is detected, allowing companies to be proactive, thereby reducing customer risk levels and premiums (Moodley, 2019).

Moreover, blockchain technology allows insurers to use smart contracts that have led to efficiencies in, for example, processing claim payments and customer acquisition (Balasubramanian et al., 2018). Blockchain technology provides ease of automating claims and client verification processes and provides a secure means of transferring data between parties when settling claims, thus introducing efficiencies and reducing costs (Yadav & Mohania, 2015).

Using these technologies could reduce the cost of insuring substantially with a huge potential of reducing customer premiums. Technology is also reshaping how market research is conducted for new product development, such as social media, including sentiment analysis, video streaming, and data collection software that significantly reduce the cost and data collection time (Batinca & Treleaven, 2015). From a training perspective, companies are using electronic learning platforms to reduce the cost associated with traditional training, such as training room maintenance, traveling, and printing of training material (Beinicke & Bipp, 2018; Zhu et al., 2011), which can reduce cost.

RESEARCH METHODOLOGY

Research Design

A single and in-depth Case Study design was used to provide an in-depth investigation of an insurance company within its realistic environment that offers higher construct validity and comprehensive insights (Babbie, 2016). The single-case was appropriate to answer the exploratory questions on “why,”

“what,” and also “how” digital innovation can be used to reduce costs in the insurance industry (Saunders et al., 2015).

The case study used an established insurance company in South Africa that is still dependent on its legacy processes. Legacy processes are expensive to maintain, making this company ideal for the case (Sanders, 2017).

Research Question and Objectives

There seems to be limited research on the impact of digital innovation on the insurance product pricing structure. This research sought to investigate how insurance providers use digital innovation to reduce expenses to provide more affordable products. This research first identifies activities that drive expenses within the insurance products—whose expenses could be reduced using digital innovation. Secondly, it recommends the measures these insurance companies could take to reduce their digital innovations expenses.

Data Sources and Sampling

Purposive sampling was used to select the best-suited respondents in the limited sample size and answer the research questions (Saunders et al. 2015). For the purposive sampling, the population included staff from the sales team for customer onboarding processes, customer service and claims teams for insights on current servicing and claims processes, training department for training delivery related information, actuarial for expense components embedded in the product structure, and the finance team for operational expenses. Nine experienced participants were interviewed across these business areas. The participants included three Actuaries out of four team members, one finance participant out of a team of two, one sales participant out of 11, one customer service representative out of a team of 36, two claims team representatives out of 74, and one participant from training out of 6 team members.

Data also was collected using inquiry reports and company budget. Twelve call center inquiry reports covering three months from November 2018 to January 2019 were used. The company’s budget for the 2019-2020 financial year was used to ascertain how expenses are allocated across the value chain, more specifically, the customer acquisition and servicing costs.

Research Methods

A qualitative approach using both primary and secondary information was used. Focus group interviews were conducted with the Actuarial team, which involves conducting group interviews with individuals to discuss a specific topic to extract information from their experiences and perceptions (Nyumba et al., 2018). An interview guide was used to conduct semi-structured interviews. Semi-structured interviews are useful for obtaining in-depth insights on participant experiences and are conversational, where participants share their opinions freely on certain subjects (Adams, 2015). An interview guide with open-ended and follow-up questions was used. Open-ended questions are ideal for understanding respondents' thoughts and elicit candid responses (Adams, 2015). The interview guide was structured in different sections: to obtain the respondent’s consent, their background, and their knowledge of the current onboarding and servicing processes, and their opinion on the current processes’ challenges and understanding how operational expenses influence the product pricing structure. A voice recorder was used to record the sessions and was transcribed before data were analyzed.

Data Analysis

Thematic Analysis was used to examine the qualitative information from the interview data. Thematic analysis was used to recognize, examine, categorize, delineate, and report patterns in the data, and one of the strengths is that it is fairly easy to use (Nowell et al., 2017). The process followed involves understanding the data, allocating codes to describe information, searching for patterns and themes, evaluating themes, describing and naming themes, and then generating a report using Atlas.ti™.

RESEARCH RESULT AND FINDINGS

The purpose of the research was to understand how sales and servicing expenses influence premium pricing in the insurance industry and how technology could reduce these expenses. For reporting purposes, “Fin-T” refers to respondents from the Finance team, “Act-T” for Actuary, “Cust-T” for Customer Service, “Train-T” for Training, “Sal-T” for Sales, and “CL-T” for the Claims team.

The Finance Perspective

Team members from the Actuarial and Finance teams were interviewed to understand the financial implications of internal processes, especially how these expenses impact the customer premium and what expenses are embedded in the product structure. In determining the minimum premium: “*advisor commission, marketing, employee salaries, infrastructure, and sales-related expenses all influence the final premium*” [Act-T2]; and “*High-risk profile of customers, operating expenses, process and system inefficiencies, for instance, manual processes, all contribute to higher premiums*” [Fin-T]. These costs are in addition to branch and IT infrastructure related expenses. The responses corroborate the literature review findings, which revealed that the cost of selling and servicing policies is incorporated into the product structure (McGregor, 2017). Furthermore, the respondents noted that expenses are generated each time a policy is touched, which reaffirms that manual processes with constant human intervention lead to increased cost (Braunwarth et al., 2010; Yadav & Mohania, 2015).

When asked to estimate the effect of sales and servicing expenses on the minimum premium, the respondent answered that it was “*between 30% and 40%*” [Act-T1]. Internal processes significantly impact expenses, especially “*costs that are activity driven*” [Fin-T]. Furthermore, the teams also emphasized the importance of performing activities correctly since each error will incur additional expenses.

Interestingly, the teams acknowledged that the company could be in a position to offer more affordable premiums if sales and servicing expenses are reduced. Respondent Act-T2 stated, “*onboarding and servicing expenses will have a significant impact since it will enable us to lower customer premiums.*” This is because the cost efficiencies would make the premiums lower, and an increase in sales would mean more policies would split the expenses between due to economies of scale.

Respondents also were asked what role technology can play in reducing expenses. Both the Finance and Actuarial team acknowledged that technology could play a significant role in reducing company expenses. For instance, the respondents noted that straight-through processing and automation would allow the company to process customer requests faster and reduce human intervention errors. “*Technology will enable straight-through processing, and automation will reduce human errors and also speed-up the turnaround time for processing customer requests*” [Act-T3]. Therefore, it is important to understand how processes are performed to identify opportunities for improvement.

Therefore, given the substantial impact sales and servicing expenses have on the customer premium, this provides further motivation to use technology to augment processes and to include such technologies like chatbots (Zumstein & Hundertmark, 2018).

The Process Perspective

Respondents from the Sales, Customer Service, Claims, and Training departments were interviewed to understand how the current processes correlate to the high expenses.

Respondents across all expertise raised concerns about manual processes. Results show that challenges regarding manual processes were mentioned 27 times, and difficulties regarding legacy systems and processes were mentioned six times. Lack of automation to improve efficiencies and self-service capabilities were mentioned 5 and 6 times across various interview groups, respectively.

Table 1 contains the coded classification, the repetition of the codes throughout the data, and associations drawn between the data and common themes.

Code Group	Code	Grounded	Density
Channel volumes	Branch channel incurs high expenses	2	1
	Channel: Classroom training mostly used	1	0
	Channel: PFA channel the highest expense for servicing	1	1
	Channel: Receive most claims request from branches	1	1
	Most service requests received via telephony channel	1	1
Manual processes and inefficiencies	Challenges: Legacy systems and process impact expenses	6	1
	Inefficient and manual processes	27	3
	L&D: Lack of capacity to focus on more important things	3	1
	Reducing expenses will lower premiums	1	3
Process Automation	Automation needed to improve efficiency	5	1
	Straight through processing would improve efficiency	1	2
Reliance on traditional processes	Printing and posting incur high expenses	1	1
	Reliance on physical documents/paper	9	1
Self-service capabilities	No self-service capabilities	5	1
	Self-service capabilities needed	6	2
Technology adoption	Customer and staff readiness for technology	2	2
	Training: Current advisors not tech-savvy	0	1
	Training: Poor UX resulted in lack of tech adoption	0	1
Technology purpose	Business must understand the purpose of technology	3	0

Table 1: Coded Classification with Repetitions and Associations

Sales Processes

A member of the sales team was interviewed to understand the steps involved in onboarding new customers. From a channel perspective, the respondent noted that products are sold through face-to-face, telesales, and branch channels, with the face-to-face channel being the primary source of new business

volumes. The process starts with an agent, who schedules a face-to-face appointment with the customer, and once there, conducts financial analysis to determine the appropriate solution for the customer. Following the discussion, a paper application form is completed that contains the necessary information. The agent will then capture the application into an Information System (IS) at a later stage. Currently, there are no self-service capabilities for customers.

The respondent estimated that between 80% and 90% of sales are still facilitated through paper forms despite there being an IS to capture new business applications electronically. Respondents attributed over-reliance on paper to infrastructure challenges (e.g., network latency), lack of access to technology, and the advisors' aversion to or lack of familiarity with using technology. *"Most new business volumes are facilitated through paper, and due to poor Internet connection and slow system performance of current online solutions, advisors still prefer to use paper forms"* [Sal-T]. Advisors prefer using paper forms since capturing the application via computers takes too long and is prone to human error. The accuracy of data presents a different set of challenges.

From an expense perspective, the Finance team acknowledged that manual processes that include paper forms and posting customer documents impact expenses: printing paper forms and posting customer documents contributes to high expenses. While the actual cost of paper in the processes was difficult to quantify, the Finance expense documents showed that running branches' total cost is the most expensive channel, which accounted for up to 40% of the total channel expenses. This cost was followed by the Personal Finance Advisor (PFA) channel cost, which accounts for 13%. Branches and PFA channel processes are reliant heavily on paper forms.

Additionally, the Finance team revealed that manual processes are a major contributor to high expenses. For example, in certain instances, the team noted that the back office manually reviews applications to complete the customer enrollment process. *"[M]anual and labor-intensive processes have a significant impact on expenses, for instance, when consultants email forms between departments in order to complete the customer enrollment process"* [Fin-T]. As a result, additional staff is employed to perform manual tasks, which inflates the staff book leading to further expenses.

When asked about how technology can help solve some of the challenges, the sales team acknowledged that self-service capabilities are essential. However, infrastructure and poor user experience must be addressed before such technologies are introduced to customers. The team also revealed that the current the advisor force is not tech-savvy and stressed the importance of selecting, educating, and training the right calibre of advisors for the digital era. *"The current crop of advisors lacks experience and is not tech-savvy, and needs to be brought to a certain level where they more open to use[using] technology"* [Sal-T].

It is irrefutably clear that paper forms are still entrenched in the company's processes, significantly impacting expenses. The respondent's feedback is supported by the literature review findings, which revealed that companies spend a considerable amount of their revenue and employees' time using paper (Device Magic, 2019). Furthermore, the results also revealed that the insurer still is reliant on traditional broker channels to sell products that incur high administration costs (Sanders, 2017), even though using online platforms to distribute products can lower costs (Méndez-Aparicio et al., 2017).

Customer Service Processes

A senior member from the customer service team was interviewed to understand the current processes for servicing existing customers. The respondent noted that customers could be serviced through the call center, branch, email, fax, and company website from a channel perspective. However, as noted earlier,

there are no self-service capabilities, with customer queries submitted via the website still being routed to an agent for manual processing.

Most of the servicing queries are received via the contact center channel. However, when customers contact the call center outside of core operating hours, they must leave a voice message, and a consultant will contact them the following day. The most common queries they receive relate to basic policy inquiries, followed by investment fund withdrawals. Operational reporting revealed that the call center serviced more than 4,000 calls related to basic policy inquiries during January 2019. Since there are no self-service capabilities, customers have to obtain service via traditional channels by, for example, contacting the call center or visiting a branch.

The respondent lamented that manual processes are affecting their productivity: *“team leaders are spending too much time on manual processes instead of focusing on work that adds more value, such as improving [the] productivity of team members”* [Cust-T]. For instance, the team calculates staff performance remuneration manually using Excel spreadsheets. Three team leaders who, on average, have 12 people each reporting to them do the calculation. The calculations take up to 24 hours a week to complete for each team leader, which could have been spent on more important tasks due to the team size.

Furthermore, when asked about recommendations for improvements, a respondent recommended self-service capabilities that will enable customers to fulfill basic needs, such as policy inquiries. *“[T]echnology can be used to create a self-service application that will allow customers and advisors to perform basic policy requests.”* [Cust-T]. Additionally, a recommendation was made to use instant messaging tools to communicate with agents in real-time without contacting the call center.

The company's financial documents indicated that servicing and support costs account for more than 30% of the total expense budget for the 2019-2020 period. The respondent's feedback and costs from the budget amplified the need to use technology to optimize processes. The customers' inquiries showed that the company could not service customers outside of core operating hours, which presents an opportunity for chatbot technology, enabling the business to communicate with customers 24 hours a day, seven days a week (Zumstein & Hundertmark, 2018). Furthermore, the manual processes, such as remuneration calculations, present an opportunity for technology (e.g., using automation) to increase team leaders' productivity and efficiency significantly. Robot Process Automation technology can automate repetitive tasks with great cost savings (Lamberton et al., 2017).

Claims Processes

Customers and third parties can submit a claim by contacting the call center, branch, or sending a request via email or fax. Additionally, claim inquiries can be submitted via the website; however, all website requests are routed to a back-office agent for further processing. Staff in the claims department also highlighted that manual processes are one of their biggest challenges, especially because of the number of people involved in the policies when claims are processed. For instance, when processing maturity claims, manual calculations are performed to estimate the payout amount. On average, with the team processing 2,000 maturity claims requests per month over six months and 1,675 death claims over three months, these processes can be daunting. The teams are battling to keep pace due to the manual nature of processes and limited staff capacity, which affects the policies' costs, ultimately affecting the premiums charged to customers. The company's financial reports show that staff remuneration accounts for more than 13% of total expenses, therefore, adding more staff to support manual processes only will increase the cost to customers.

The respondent acknowledged that self-service capabilities would add significant value to their service model. For instance, a suggestion was made to use self-service capabilities where customers or third parties can register claims and upload supporting documents themselves. “*Technology can be used to create a self-service application where customers and third-parties can register their claim on their mobile phone or a website, and where they can upload all required documents to improve turnaround time*” [CL-T]. Additionally, the respondent recommended using technology, such as AI and machine learning capabilities, to put controls in place to reduce errors when processing claims. Moreover, the respondent acknowledged that using technology to augment processes could allow them to focus on other important tasks, such as analyzing the unclaimed benefits book, which can unlock significant business and customer value. This acknowledgement clearly shows an awareness of the existing technologies that are not currently being used that can improve efficiencies, turnaround times, and reduce costs significantly (Hall 2017).

Therefore, this presents an opportunity to introduce digital self-service platforms that will help reduce expenses and the stringent controls required to help firm-up internal claims processes. Blockchain technology also could play a vital role in automating customer verification and payment processes, thereby reducing expenses (Kantur & Bamuleseyo, 2018).

Training Processes

The company’s financial documents revealed that Learning and Development (L&D) activities represent 10% of the company’s total expense budget, with 18% of these expenses used on traveling. The L&D team struggles to keep training material up to date. Of great cost concern, though, is that training materials are printed and distributed in bulk for workshops, making it difficult to manage changes to material afterwards because of the number of efforts and costs required to reprint and distribute new training material. Reprinting and distributing training materials create enormous resource challenges since much time is used to keep the training material up to date. Often, any changes are communicated to the facilitator, who then creates a supplement to the original training pack as an alternative.

Like with other processes and activities discussed above, currently, there are no self-service capabilities for training. The respondent reported an earlier effort to pilot online training software. However, the adoption was low due to low use and poor user experience, lack of access to technology, and poor infrastructure.

Technology can play an important role in reducing expenses and introducing efficiencies to the training area. Considering the logistics involved in classroom training, such as booking venues and food provision, the company could explore digital options, such as mobile training applications, to reduce expenses. Additionally, maintaining e-learning content is much easier than managing changes to paper forms, and the cost is significantly less (Zhu et al., 2011). Furthermore, the team’s recommendation to develop a mobile training application is also in-line with industry trends.

DISCUSSION AND CONCLUSION

The study was undertaken to discuss how expenses embedded in the product structure inflate the customer premium and how technology can reduce these expenses. This research sought to understand how sales and servicing processes are performed across the insurance value chain and how these activities contribute to high expenses. The respondents’ feedback revealed that technology could reduce expenses significantly within the insurance industry. Additionally, the respondents’ feedback and literature review revealed that insurance companies still rely on manual processes and paper forms to perform sales and service activities and that both are contributing to high expenses. Most insurance

processes are still reliant on paper, and as a result, employees spend time on mundane tasks, such as recapturing data (Cooper, 2018).

Respondents across all teams acknowledged that technology could play a significant role in introducing efficiencies and cost savings in their area, such as in using self-service platforms to help reduce expenses. However, the results reveal that technology on its own is not the silver bullet when it comes to digitally transforming the business, as the business has introduced some technologies that have fallen short of expectations in terms of use, access, and the state of infrastructure. Customers will not use the platform if it is not user friendly, meaning the company will not achieve its cost savings objective (Jeyakumar, 2016). Therefore, the necessary infrastructure, such as a Wi-Fi connection, also must be in place to support new technology. Information Technology infrastructure forms the base of a company's ability to innovate and execute its technology strategy (Sethi et al., 2019).

However, it will take more than technology to navigate the new digital transformation era, especially for established insurance companies that are still reliant on traditional ways of conducting business. It is also important to address internal challenges related to technology adoption. For instance, the necessary infrastructure must be in place to support new technologies, and user experience must be assessed when designing new customer engagement platforms. The synergy between humans and technology plays a crucial role in the success of new technologies (Koul & Eydgahi, 2017).

The research findings could amplify the need to adopt digital technologies into company processes and lead to more affordable products and services for customers. Moreover, the insights can benefit insurers who are still conducting business in traditional ways by highlighting the impact of inefficient processes and technologies that can transform their business model.

Based on this study's results, it would be beneficial to conduct further studies on improving technology adoption in traditional businesses, as unused technology can aggravate the high expense problem (Miller, 2016). Moreover, further research also could be conducted to explore how company culture impacts traditional businesses and how staff "set in their ways" are attached to the traditional ways of doing things, which contributes to expense challenges and low technology adoption.

The research findings uncovered the need for digital innovation in established insurance companies and a culture shift that the new digital era requires. As discovered during interviews with the Actuarial and Finance team, acquisition and service costs account for 40% and 30% of the expense base. Therefore, by leveraging technology, such as automation, AI, and digital platforms to enhance processes, the cost reduction potential is significant. As a result, these cost saving benefits can be transferred to customers in the form of lower premiums.

REFERENCES

- Accenture. (2016). *Be digital: A R115.2 billion opportunity for South Africa's short-term insurance industry*. Retrieved from https://www.accenture.com/t20170707T155858Z_w_/za-en/acnmedia/PDF-25/Accenture-Be-Digital-POV.pdf?lang=en
- Adams, W. C. (2015). Conducting semi-structured interviews. In K. E. Newcomer, H. P. Hatry, & J. S. Wholey (Eds.), *Handbook of practical program evaluation* (4th ed.; pp. 492–505). John Wiley & Sons, Inc. <https://doi.org/10.1002/9781119171386.ch19>
- Agolla, J. E., Makara, T., & Monametsi, G. (2018). Impact of banking innovations on customer attraction, satisfaction and retention: The case of commercial banks in Botswana. *International Journal of Electronic Banking*, 1(2), 150. <https://doi.org/10.1504/IJEBANK.2018.10016653>
- Alireza, F., Fatemeh, B., & Pegah, M. (2011). How after-sales service quality dimensions affect customer satisfaction. *African Journal of Business Management*, 5(17), 7658–7664. <https://doi.org/10.5897/AJBM11.351>
- Babbie, E. R. (2016). *The Practice of Social Research* (14th ed.). Cengage Learning.

- Balasubramanian, R., Libarikian, A., & Mcelhane, D. (2018). *Insurance 2030—The impact of AI on the future of insurance*. Retrieved from <https://www.mckinsey.com/industries/financial-services/our-insights/insurance-2030-the-impact-of-ai-on-the-future-of-insurance>
- Bashir, S. I., Madhavaiah, C., & Naik, S. J. R. K. (2013). Critical analysis of traditional and modern insurance distribution channels in India. *The Journal of Insurance Institute of India*, 59–68.
- Batrinca, B., & Treleaven, P. C. (2015). Social media analytics: A survey of techniques, tools and platforms. *AI & Society*, 30(1), 89–116. <https://doi.org/10.1007/s00146-014-0549-4>
- Beinicke, A., & Bipp, T. (2018). Evaluating training outcomes in corporate e-learning and classroom training. *Vocations and Learning*, 11(3), 501–528. <https://doi.org/10.1007/s12186-018-9201-7>
- Boucher, J.-P., Côté, S., & Guillen, M. (2017). Exposure as duration and distance in telematics motor insurance using generalized additive models. *Risks*, 5(4), 54. <https://doi.org/10.3390/risks5040054>
- Braunwarth, K. S., Kaiser, M., & Müller, A.-L. (2010). Economic evaluation and optimization of the degree of automation in insurance processes. *Business & Information Systems Engineering*, 2(1), 29–39. <https://doi.org/10.1007/s12599-009-0088-6>
- Calciu, M. (2008). Numeric decision support to find optimal balance between customer acquisition and retention spending. *Journal of Targeting, Measurement and Analysis for Marketing*, 16(3), 214–227. <https://doi.org/10.1057/jt.2008.15>
- Callaway, J. (2019). FinTech disruption: Opportunities to encourage financial responsibility. In J. Agnew & O. S. Mitchell (Eds.), *The disruptive impact of FinTech on retirement systems* (pp. 61–74). Oxford University Press. <https://doi.org/10.1093/oso/9780198845553.003.0004>
- Cascio, W. F., & Montealegre, R. (2016). How technology is changing work and organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 3(1), 349–375. <https://doi.org/10.1146/annurev-orgpsych-041015-062352>
- Chao, C. (2015). *Implementing a paperless system for small and medium-sized businesses (SMBs)*. University of Oregon. Retrieved from <https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/19630/Chao2015.pdf>
- Christensen, C. M., McDonald, R., Altman, E. J., & Palmer, J. E. (2018). Disruptive innovation: An intellectual history and directions for future research. *Journal of Management Studies*, 55(7), 1043–1078. <https://doi.org/10.1111/joms.12349>
- Coombs, C., & Redman, A. (2018). The impact of robo-advice on financial advisers: A qualitative case study. *Proceedings of the 23rd UK Academy for Information Systems (UKAIS) International Conference* (pp. 1–23). Retrieved from <https://dspace.lboro.ac.uk/dspace-jspui/handle/2134/32441>
- Cooper, T. (2018). Insurance is playing catch-up with technology. *Raconteur.net*. Retrieved from <https://www.raconteur.net/risk-management/insurance-playing-catch-technology>
- de Reuver, M., Sørensen, C., & Basole, R. C. (2018). The digital platform: A research agenda. *Journal of Information Technology*, 33(2), 124–135. <https://doi.org/10.1057/s41265-016-0033-3>
- Deloitte. (2017, August). *Unlocking new markets digital innovation in Africa's insurance industry*. Retrieved from https://www2.deloitte.com/content/dam/Deloitte/za/Documents/financial-services/za_Digital-Insurance-101017.pdf
- Device Magic. (2019). *What paper is actually costing your business*. Retrieved from <https://www.devicemagic.com/what-paper-costs-your-business/>
- Griffiths, P. (2020). The FinTech industry: Crowdfunding in context. In R. Shneor, L. Zhao, & B.-T. Flåten (Eds.), *Advances in Crowdfunding* (pp. 241–270). Springer International Publishing. https://doi.org/10.1007/978-3-030-46309-0_11
- Gulamhuseinwala, I., Bull, T., & Lewis, S. (2015). FinTech is gaining traction and young, high-income users are the early adopters. *Journal of Financial Perspectives*, 3(3), 16–23.
- Hall, S. (2017, August). *How Artificial Intelligence is changing the insurance industry*. The Center for Insurance Policy & Research Newsletter. Retrieved from https://protectingthefuture.naic.org/cipr_newsletter_archive/vol22.pdf
- Husnjak, S., Peraković, D., Forenbacher, I., & Mumdziev, M. (2015). Telematics system in usage based motor insurance. *Procedia Engineering*, 100, 816–825. <https://doi.org/10.1016/j.proeng.2015.01.436>
- Iriarte, I., Alberdi, A., Urrutia, E., & Justel, D. (2017). Beyond customer satisfaction. Supporting organisational change through service design. A case study in the insurance industry. *The Design Journal*, 20(sup1), S424–S434. <https://doi.org/10.1080/14606925.2017.1352950>
- Jayadev, M., Singh, H., & Kumar, P. (2017). Small finance banks: Challenges. *IIMB Management Review*, 29(4), 311–325.

<https://doi.org/10.1016/j.iimb.2017.10.001>

- Jeyakumar, N. (2016). *Analysis of the digital direct-to-customer channel in insurance*. Massachusetts Institute of Technology. Retrieved from <https://cams.mit.edu/wp-content/uploads/2016-21.pdf>
- Kannan, P. K., & Li, H. (2017). Digital marketing: A framework, review and research agenda. *International Journal of Research in Marketing*, 34(1), 22–45. <https://doi.org/10.1016/j.ijresmar.2016.11.006>
- Kantur, H., & Bamuleseyo, C. (2018). *How smart contracts can change the insurance industry* (Unpublished master's thesis). Jonkoping University. <https://doi.org/10.13140/RG.2.2.12533.01768>
- Kelley, K. H., Fontanetta, L. M., Heintzman, M., & Pereira, N. (2018). Artificial Intelligence: Implications for social inflation and insurance. *Risk Management and Insurance Review*, 21(3), 373–387. <https://doi.org/10.1111/rmir.12111>
- Klein, H. J., & Polin, B. (2012). Are organizations on board with best practices onboarding? In C. R. Wanberg (Ed.), *The Oxford handbook of organizational socialization* (pp. 267–286). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199763672.013.0014>
- Koul, S., & Eydgahi, A. (2017). A systematic review of technology adoption frameworks and their applications. *Journal of Technology Management & Innovation*, 12(4), 106–113. <https://doi.org/10.4067/S0718-27242017000400011>
- Kruger, L. J. (2018). *Exploring antecedents of consumer behaviour within the South African life insurance industry* (Unpublished master's mini-dissertation). North-West University. Retrieved from https://repository.nwu.ac.za/bitstream/handle/10394/30997/Kruger_LJ.pdf
- Lamberton, C., Brigo, D., & Hoy, D. (2017). Impact of robotics, RPA, and AI on the insurance industry: Challenges and opportunities. *The Journal of Financial Perspectives*, 4(1), 8–20.
- Larsson, A., & Broström, E. (2019). Ensuring customer retention: Insurers' perception of customer loyalty. *Marketing Intelligence & Planning*, 38(2), 151–166. <https://doi.org/10.1108/MIP-02-2019-0106>
- McGregor, S. (2017). *Product costs: Application in an insurance company*. Institute of Management Accountants. <https://doi.org/10.4135/9781526426734>
- Méndez-Aparicio, M. D., Izquierdo-Yusta, A., & Jiménez-Zarco, A. I. (2017). Consumer expectations of online services in the insurance industry: An exploratory study of drivers and outcomes. *Frontiers in Psychology*, 8(1254), 1–14. <https://doi.org/10.3389/fpsyg.2017.01254>
- Miller, J. A. (2016, January). The real cost of unused software will shock you. CIO. Retrieved from <https://www.cio.com/article/3024420/the-real-cost-of-unused-software-will-shock-you.html>
- Moodley, A. (2019). Digital transformation in South Africa's short-term insurance sector: Traditional insurers' responses to the Internet of Things (IoT) and Insurtech. *The African Journal of Information and Communication*, 24, 1–16. <https://doi.org/10.23962/10539/28657>
- Nair, V. M., & Menon, D. G. (2017). FinTech firms—A new challenge to traditional banks: A review. *International Journal of Applied Business and Economic Research*, 15, 173–184.
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1-13. <https://doi.org/10.1177/1609406917733847>
- Nyumba, T. O., Wilson, K., Derrick, C. J., & Mukherjee, N. (2018). The use of focus group discussion methodology: Insights from two decades of application in conservation. *Methods in Ecology and Evolution*, 9(1), 20–32. <https://doi.org/10.1111/2041-210X.12860>
- Palmié, M., Wincent, J., Parida, V., & Caglar, U. (2020). The evolution of the financial technology ecosystem: An introduction and agenda for future research on disruptive innovations in ecosystems. *Technological Forecasting and Social Change*, 151. <https://doi.org/10.1016/j.techfore.2019.119779>
- Ray, P. P. (2018). A survey on Internet of Things architectures. *Journal of King Saud University—Computer and Information Sciences*, 30(3), 291–319. <https://doi.org/10.1016/j.jksuci.2016.10.003>
- Romley, J. A., Sanchez, Y., Penrod, J. R., & Goldman, D. P. (2012). Survey results show that adults are willing to pay higher insurance premiums for generous coverage of specialty drugs. *Health Affairs*, 31(4), 683–690. <https://doi.org/10.1377/hlthaff.2011.1301>
- Sanders, D. (2017). *Insurance distribution channels*. Chartered Insurance Institute. Retrieved from <https://www.cii.co.uk/learning-index/articles/insurance-distribution-channels/46267>
- Santam. (2018). *Santam invests millions in training and skills development*. Santam. Retrieved from

<https://www.santam.co.za/about-us/media/corporate-news/santam-invests-millions-in-training-and-skills-development/>

- Saunders, M., Lewis, P., & Thornhill, A. (2015). *Research Methods for Business Students* (7th ed.). Pearson.
- Sethi, A., Swartz, J., Bhardwaj, N., & Agrawal, A. (2019). Modernizing IT infrastructure for the digital age. Kearney. Retrieved from <https://www.kenney.com/digital-transformation/article?/a/modernizing-it-infrastructure-for-the-digital-age>
- Shi, P. (2012). Multivariate longitudinal modeling of insurance company expenses. *Insurance: Mathematics and Economics*, 51(1), 204–215. <https://doi.org/10.1016/j.insmatheco.2011.08.011>
- Stoeckli, E., Dremel, C., & Uebernickel, F. (2018). Exploring characteristics and transformational capabilities of InsurTech innovations to understand insurance value creation in a digital world. *Electronic Markets*, 28(3), 287–305. <https://doi.org/10.1007/s12525-018-0304-7>
- Taiminen, H. M., & Karjaluoto, H. (2015). The usage of digital marketing channels in SMEs. *Journal of Small Business and Enterprise Development*, 22(4), 633–651. <https://doi.org/10.1108/JSBED-05-2013-0073>
- The Ombudsman For Short-Term Insurance. (2018). *Annual Report 2017*. Retrieved from <https://www.osti.co.za/media/1229/osti-annual-report-2017.pdf>
- Tiemann, K. (2019, January). How Much do Insurance Companies Spend on Marketing? Leadsurance. Retrieved from <https://leadsurance.com/how-much-do-insurance-companies-spend-on-marketing/>
- Todor, R. D. (2016). Blending traditional and digital marketing. *Bulletin of the Transilvania University of Brasov*, 9(58), 51–56. Retrieved from http://webbut.unitbv.ro/bulletin/Series V/2016/BULETIN I PDF/06_Todor R.pdf
- Wayman, C. (2018, April). Paying the price? Ombudsman News. Retrieved from <https://www.financialombudsman.org.uk/publications/ombudsman-news/144/pdf/issue144.pdf>
- Yadav, R. K., & Mohania, S. (2015). Claim settlement process of life insurance policies in insurance services: A comparative study of LIC of India and ICICI Prudential Life Insurance Company. *International Letters of Social and Humanistic Sciences*, 49, 21–29. <https://doi.org/10.18052/www.scipress.com/ILSHS.49.21>
- Zhu, Y., Nie, Z., Zhang, S., & Chen, S. (2011). Analysis on research framework of corporate e-learning. *Procedia Environmental Sciences*, 11, 525–529. <https://doi.org/10.1016/j.proenv.2011.12.083>
- Zumstein, D., & Hundertmark, S. (2018). Chatbots: An interactive technology for personalized communication, transactions and services. *International Journal on WWW/Internet*, 15(1), 96–109.