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Takaful Industry in the Era of Technological Advancement

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Abstract

The aim of this paper is to investigate how the takaful industry can address the issue of technological advancement. Furthermore, to explore the way by which takaful operators can compete with fintech insurers as well as in which areas takaful operators should focus on to innovate, e.g., technology or products, Additionally, to find out if there are any shariah concerns if takaful operators jump on the bandwagon of these fintech insurers, The findings of the research show that the impact of technological innovations extends beyond the takaful value chain itself to the whole takaful eco-system. The combination of big data and advanced analytics is reshaping the takaful industry, from underwriting to claims and marketing, by inventing new products and distribution channels. The threat from big-tech companies such as Google, Facebook, Apple, and Amazon have broadened the scope of the operator's problem because these big-tech companies are currently offering insurance products through their websites. The Takaful industry should tie up with big tech companies to sell their products through their websites. Since these companies have deep knowledge and experience in technology, they have also gained a decent reputation as they have proven records of providing excellent services to their customers and have a vast global reach. This research brings insights for policymakers, regulators, and practitioners. The main insights in this paper are technological advancements in the takaful industry. It further answers the question of which areas Takaful operators should focus on to innovate, e.g., technology or products.

Introduction

Takaful presents a prudent and rational option for Muslims seeking regular protection. The core consideration, however, is how effectively it can cater to the specific needs of the community. It's evident that Takaful has already demonstrated substantial growth potential, and this potential is poised to further escalate in the coming years. Yet, the trajectory of Takaful's evolution hinges on the astute utilization of the expanding possibilities within the Takaful operational framework. This, in turn, must be closely aligned with the imperatives of the Islamic economy and the prevailing circumstances in Islamic nations.

In our daily lives, a wide array of risks poses threats that impact everyone, sometimes unexpectedly, evoking a sense of awe and vulnerability. Certain risks can be foreseen, while others emerge seemingly out of the blue. These hazards may target personal lives, property, or even commercial endeavors. The sobering reality is that a significant portion of the population grapples with these uncertainties, which can, at times, prove profoundly distressing and tragic. Consequently, such unfortunate events leave individuals defenseless and overwhelmed in their circumstances.

Islamic teachings advocate for the practice of proactive measures, termed "ikhtiar," to safeguard oneself from potential harm. This approach finds historical precedence, as evident in the story of Prophet Youssef (Allaihi Salam) from the Quran, where he stocked grain during times of plenty to ensure a continuous food supply during years of drought. This illustrates the importance of preparation and organization to avert adversity and achieve stability.

The fundamental goal of insurance is to establish shared responsibilities rooted in collective co-operation, in the endeavor to shield individuals from unforeseen hazards. The Arabic term "Takaful" originates from "Kafala," signifying "to ensure, watch over, and secure," reflecting its essence. Takaful embodies the notion of "promising one another." It operates as an agreement among a group of individuals who pledge mutual assistance to address each other's needs, akin to a joint insurance arrangement. Members contribute individual premiums to a common pool, with the understanding that they collectively provide support to fellow members who encounter the risks covered by the arrangement (Takaful Brunei Darussalam, 2011).

Within Islamic jurisprudence, most scholars concur that Takaful protection is consistent with Shariah principles. This stems from the deep integration of the halal concepts of "tabarru" (gift or commitment) and "takaful" (joint endeavor or shared obligation) within it. This alignment underscores how Takaful administrators and members collaborate to offer financial security (Syarikat Takaful Malaysia, 1999).

Distinguishing itself from conventional insurance, Takaful is rooted in societal solidarity, collaboration, and the shared mitigation of individual hardships. It's a pact among individuals who mutually share the burden of loss or damage, drawing from a common fund they collectively contribute to. This is in stark contrast to conventional insurance, where the insurance company assumes the risk and provides compensation based on policy terms (Ahmad et al., 2020; Matsawali et al. 2012).

The distinguishing hallmark of Takaful is that it doesn't involve the exchange of risk through premium payments to an insurer. Rather, the administrator assumes the role of a fund manager to better serve the members' needs. In this context, the administrator isn't a risk bearer; the risk is collectively borne by the members who have voluntarily agreed to share it (Yusof, 1996; Taib et al., 2018).

Islamic principles, while accommodating the concept of protection, emphasize risk-sharing and avoiding practices that embody uncertainty or exploitation. Takaful aligns with these ideals. It upholds the Shariah while adhering to fundamental insurance principles such as utmost good faith, proximate cause, indemnity, and insurable interest (Salman Fahad, 2005).

As per Muhammad Nejatullah Siddiqi (1985), Scholars have identified elements in traditional insurance that don't align with Shariah requirements. These include "Al-Gharar" (ambiguous or uncertain terms), "Al-Maisir" (resembling gambling), and "Riba" (interest). Takaful's framework transparently addresses these concerns, promoting clear and equitable distribution of benefits, and ensuring that contributions are not akin to wagers or speculative transactions.

Literature Review

The expanding Takaful and Retakaful (reinsurance) market can indeed serve as a powerful tool for bolstering the economic progress of Islamic countries. The growth and advancement of Takaful as a credible alternative to traditional insurance models holds the potential to substantially contribute to the economic prosperity of Islamic nations (Ali, 2006). In the contemporary landscape, the advent of digital disruption is both imminent and substantial. The deployment of financial technology (fintech) has become essential, transcending its prior status as a mere option. The accessibility of comprehensive financial services via smart devices has greatly enhanced customer experiences. However, amidst this convenience, it's vital to preserve the primary role of banking institutions as the guardians of consumers' finances. While fintech offers convenience, it should not compromise the core responsibility of safeguarding customers' money. The challenge presented to Takaful operations due to digital disruption lies in the imperative to either adapt and integrate or face gradual obsolescence (Ahmad et al., 2023; Saad, 2012; Sukmaningrum et al., 2022; Antonio et al., 2013). To address this challenge, Takaful Malaysia, for example, has partnered with software firm Fusionex to revamp its core software and bolster its online presence. The response has been promising, with around 40 million insurance policies sold on its digital platform within just three months of launching its first product online. Takaful Malaysia is also actively working to reach individuals who may have limited web literacy, including senior citizens and rural populations with restricted internet access.

The influence of fintech on Takaful operations is not entirely negative, as fintech isn't poised to eliminate traditional players altogether. There remains a significant customer segment that prefers dealing with agents when purchasing insurance. However, over time, traditional players may face a substantial decline in their customer base, as individuals who have grown up with the internet and smartphones comprise a larger portion of the population. Traditional players need to contemplate collaborations with fintech entities and harness their technological capabilities. Additionally, they can carve out niches in business segments that are less susceptible to imitation by non-traditional players. On the broader Islamic finance landscape, fintech contributes positively to the evolution of Islamic financial products and services, including Takaful. It enhances the professionalism of intermediaries, ensuring not only sales but also adequate guidance (Ahmad et al., 2023; Khan, 2005; Nugraheni & Muhammad, 2020).

In Malaysia, consumers are gradually shifting to online banking and increasingly researching and purchasing financial products such as credit cards and personal loans online. Insurance products are also becoming available on aggregators, price comparison websites, and directly through insurers. The central bank, Bank Negara Malaysia, has established a fintech regulatory sandbox framework to facilitate innovation that enhances the quality, efficiency, and accessibility of financial services in the country. Many banks, including Islamic banks, are partnering with fintech players (Radwan et al., 2020).

Concerning the Takaful business, the adoption and use of Information and Communication Technologies (ICTs) have yielded several benefits over time. Two of the most notable advantages include faster communication and operational efficiency. Technologies like video conferencing have made real-time communication with partners and stakeholders outside the headquarters possible. Websites enable interaction and feedback with customers and potential policyholders. Vital documents, information, and resources are now seamlessly shared online, facilitating streamlined claims processing and policy management (Apampa, 2010).

Discussion and Analysis

Takaful and Technology

Monetary advancements, or "fintech" developments, are reshaping the arrangement of budgetary administrations, creating new opportunities and presenting new difficulties for both the protection business and money-related chiefs. Fintech developments allude to the assortment of rising advancements and imaginative plans of action that can possibly change the takaful business. In the takaful division, the most important advancements are regarding rising advances: computerized stages, the Web of Things, telematics, huge information, information examination, comparators, robo-counsels, AI, man-made reasoning, and appropriated record innovation, including blockchain and savvy contracts. Plans of action: distributed, utilization put together, and with respect to request takaful (Shafique et al., 2015). Technological improvements and the changing desires of clients are the fundamental drivers of development in the takaful business. These advancements are being created both by occupant takaful organizations and by new innovation firms or organizations. Fintech developments can possibly convey a wide scope of advantages, specifically effectiveness upgrades, cost decreases, improved hazard appraisal, predominant client experience, and more prominent money-related considerations. Fintech improvements are possibly problematic and may significantly affect the takaful market. Notwithstanding, it is right now too questionable a territory to adequately evaluate and comprehend the degree to which these potential improvements could influence the takaful market and its supervision (Mokal & Ahmad, 2023; Nugraheni & Muhammad, 2020).

Budgetary administration, making new chances and presenting new difficulties for both the protection business and money-related chiefs. Fintech developments allude to the assortment A portion of the different difficulties that takaful administrators may face sooner rather than later in connection to fintech developments are these: administrators need to see how advancements work and are connected so as to satisfactorily survey dangers emerging from new items and plans of action. Administrators need to weigh the dangers of new advancements against the advantages for policyholders and the takaful part all in all and think about how to make an appropriate domain to cultivate development—for instance, through administrative sandboxes or advancement center points—while protecting policyholders' interests. Administrators and policymakers need to assess and, where fitting, modify their prudential guideline system so as to catch new dangers (for example, the utilization of calculations for guaranteeing purposes) and changes in corporate administration structures emerging from outsider joint efforts with takaful organizations (Mokal & Abd Halim, 2023; Sukmaningrum et al., 2022).

Administrators need to think about whether current revealing necessities sufficiently permit the observing of patterns and the potential develop of hazard emerging from new advancements Administrators need to consider the effect of fintech developments on purchaser assurance and the degree to which clients are dealt with decently. For instance, in the utilization of man-made brainpower and robo-exhortation advancements, protections ought to be set up to guarantee that the counsel and administrations gave are appropriate and moderate to the client. Administrators need to set up participation and coordinated effort instruments with partners, including administered establishments and their affiliations, other market members, scholastics, monetary controllers and different experts whose systems apply to fintech advancements, for example, media communications or information insurance organizations. Administrators need to look at whether their supervisory apparatuses and IT foundations should be improved since mechanical advancement likewise offers open doors for managers to computerize certain supervisory procedures and consistency necessities. Administrators may need to obtain new specialized

aptitudes to get developments and recognize the related dangers. There is a requirement for administrators to pull in and hold ability with the applicable range of abilities (Husin, 2019).

Table 1. Advantages and cost-effectiveness of adopting FILOS at Takaful industry

	Legacy process	FILOS
Time	2-10 Days required to issue contract certificate from application date	After accessing 6 screens for application, issuance takes 7,5 minutes
Cost	Courier charges for 1 application (send and return) = 60 AED incurred by the bank	Total incurred cost for one application - 15 pages per customer to be printed on the spot: 0,65 x 15 = 9,95 AED
Convenience	 Customer waiting time =10 Days Sales staff may visit customer 3 or 4 times which includes Application Contract handover and manual underwriting (and may not get the contract closed) 	 Customer waiting time =10 minutes Customer needs only single visit to the branch for online processing Sales staff can reach customer anywhere with offline application process
Certainty and confidence	Customer is not aware whether s/ he will be covered	 Customer is covered on the spot No cases are rejected (minimum 1% takafid covered by the system)
Security	Initial information is stored on paper	Information is stored on secured channels

Source: Rodríguez-Moreno, (2021)

Marketing of Service Sector Industry Using Fintech

The act of presenting administrative information is being influenced by innovation. It has created a significant opportunity for administrative contributions on a massive scale. It is transforming the sphere of administration by making it possible for customers and employees to obtain and provide individualized services respectively. Innovation has been the primary driving force behind the expansion of the administrative structure. For instance, FwU Takaful, an affiliate of a German group of companies, has introduced its first takaful product in tandem with FILOS, a Fintech tool that streamlines the business from start to finish, from sales to operations. The effects of introducing FILOS were almost instantaneous. For instance, productivity increased by 100% due to a reduction in issuance time from days to minutes, while costs were reduced by 80%. In takaful, underwriting is crucial and is arguably the most crucial part of the business. Given that underwriting can take days, FwU

Takaful and its banking partner (in this case) gained a significant competitive advantage when they introduced online (and thus instantaneous) underwriting. This also gave the customer peace of mind because they knew they were covered right away. Almost all opportunities for human error, previously prevalent in paper applications, have been eliminated. The advantages of adopting FILOS, as well as how cost-effective it is, are laid out in Table 1. Simply said, modern technology has made it possible to create things like automated phone messages, interactive voice response systems, fax machines, automated teller machines, and so on (Rodríguez-Moreno, 2021).

The job of innovation and physical guides in administration conveyance framework are outlined beneath:

Easy accessibility of services:

Web-based businesses frequently rely on web men since they make the provision of new services possible. The Divider Road Diary provides its customers with an intelligent release and an intuitive version, allowing them to arrange the paper's content according to their specific requirements. Their online bill payment system ensures convenience for their customers while simultaneously enhancing their services. The so-called "associated vehicle" will make it possible for people to access a wide variety of services while they are out and about. The navigation and guiding systems that are standard in modern automobiles are designed to point the driver in the direction of predetermined destinations. Now more than ever, people are using personal digital assistants to connect to the internet (Nugraheni & Muhammad, 2020). Therefore, technology is a vehicle for delivering already existing services in ways that are more helpful to customers.

New wants to deliver services:

In addition to providing new service contributions, technology has also presented improved methods for delivering previously offered services in a more efficient manner. This is one of the many ways that technology has expanded the scope of available services. It is not an overstatement to say that technological advancements stimulate core customer service capabilities such as paying bills, tracking requests, searching for information, and so on. The proliferation of new technologies has fundamentally altered the nature of providing service to customers. Before the development of new technologies, each customer was provided with a close and personal level of service through the use of direct, in-person, close-quarters engagement between workers and customers. These days, large companies choose to concentrate their customer service operations in a single location. It is possible to do so by establishing a few large consideration centres that are able to be positioned wherever in the world (Kamil & Nor, 2014).

Close link with customer

By utilizing the most recent innovations, financial administration organizations are able to forge a more personal relationship with their clientele. Personal computers (PCs) are connected into the data frameworks of clients. At the locations of their customers' businesses, companies whose primary focus is the distribution of products install request terminals, stock management terminals, and other types of hardware. This encourages a coordinated interaction with the consumer, which in turn provides better administration for the customer. Online budgetary administration is made available by financial institutions. They provide a variety of services based on the premise of online requests, which are entered directly into the data management system without the intervention of a human (Ahmad et al., 2023; Kashif et al., 2017).

Global research of service:

The implementation of new technologies within the administration sector opens up enormous opportunities for expanding connections with customers located all over the world. The internet is only one large administration that has no bounds, and it is limitless. It is possible for data, client management, and exchange to take place across national borders. The specialized company is able to communicate with every potential customer who uses the internet. Data sharing between universal organization representatives is made possible thanks to innovation. The administration that is based on new technology can be expanded to serve customers located all over the world (Alshammari et al., 2018).

Cost rationalization:

Customer satisfaction is high as a direct result of the excellent service they receive from a number of different companies. They expect to receive administration of a high standard at prices that are reasonable. In the same way that it is utilized in the manufacturing sector, innovation can be put to use in the administration enterprises. It has the potential to supplant folks with lower levels of talent who are engaged in cutting-edge administrative jobs. Because of this alternative, the cost of administration was cut down significantly. For instance, programmable vehicle washes and programmed money containers are desirable among customers because of the ease and speed with which they do their tasks. Sites giving responses to explicit ailment, medication and treatment subtleties are another standing model for cost justification (Alhalboni et al., 2022).

The Way Takaful Operators Can Compete with Fintech Insurers

In the recent past, radical mechanical headway has quickened and by ethicalness of the new advances, another full-scale pattern has developed reforming lives internationally. This insurgency has affected the takaful business around the world. The new advancements, for example, the enormous information and the rise of savvy gadgets and applications, have expanded the recurrence and the nature of correspondences among individuals and things, web-based life stages and sharing economy ideas, are changing the ways and strategies for development, even change the takaful plans of action and escalate the interest for new items and appropriation channels (Faruk & Rahaman, 2015).

The takaful business is dynamic ordinarily, and consistently reacts to steady dangers and changes, and gives amazing support of its clients. Takaful is a vehicle for helping clients to get genuine answers for their evolving needs. Changes in innovation are unavoidable truth and carrying chances to improve the nature of takaful administration, items and appropriation techniques. Appropriately, the industry needs to grasp innovation, by encouraging examination that would prompt improving the most ideal ways by which safety net providers can convey these items/arrangements since it offers wide scope of advantages to clients and society in general (Rahman, 2013).

The takaful business has a demonstrated record in managing steady innovation progression yet during the previous three years the pace of radical innovation that has affected the takaful items and dissemination channels because of advancements. This has definitely quickened how clients need their items to be conveyed, making takaful industry fall behind others. This has made an encompassing environment for certain business visionaries, who have held onto this chance and are offering takaful administrations. Interim others have set up new businesses, who are offering takaful items with upgraded client administration norms, at focused costs, while a similar kind of items given by the officeholder takaful administrators, are sold at more expensive rates (Hasan et al., 2018).

Furthermore, the monster web organizations, for example, Google, Facebook, Apple and Amazonhave advance to protection industry with the goal that takaful industry should

started selling takafulitems through their sites and in this manner making this appropriation technique additionally speaking to the more youthful ages. In this setting a few researchers accept that joint effort with Huge Tech organizations may represent a genuine risk and uncover the insurance agencies to be weakened and constrained by these Enormous Tech organizations. The other contributory factor is that the millennial accomplice wants to buy items through the web, as opposed to managing protection operator/specialist. This makes conveyance and circulation of items time-delicate and proficient, takaful administrator ought to likewise pursue a similar technique for the conveyance and appropriation of items (Rodríguez-Moreno, 2021).

The takaful organizations should grasp innovation advancements and support new thoughts that upgrade the takaful items, administrations and circulation channels. Further, they need to move into an adaptable technique that enable them to adjust new plans of action, by which the client can manage steady and radical developments, and takeoff from the present state of affairs.

Some market specialists are of the view, that the greatest advancement in takaful throughout the following three years won't be simply the innovation devices, however by the way we structure them with clients, operators, representatives and other human accomplices as a main priority and how these exchanges will influence circulation of takaful items to the business sectors. The computerized upheaval today is a time of human strengthening, all things considered quick advances has made a people-driven innovation condition, where the power lies with individuals to shape innovation as they see fit and business must adjust how they convey to the necessities of thegeneral population (Faqih & Nurhayati, 2023).

The Areas in Which Takaful Operators Should Focus on to Innovate

The extreme innovation developments have quickened in the previous couple of years, and the takaful business is as yet lingering behind different enterprises, a few administrators don't be able to react to these fast-mechanical progressions and requirements for changing their items and conveyance models. This is likewise because of the way that they are impacted by their inheritance frameworks, additionally by the overwhelming budgetary weight of changing how they circulate items and administrations to purchasers (Masud, 2010).

New technology could mean upgrades of the administrators' tasks and administrations gave to clients, likewise new business openings. Be that as it may, innovation can be wellspring of new hazard exposures rising up out of shrouded liabilities as the innovation is defenseless to abuse and slacking in guidelines which can make potential obligation for impermissible utilization ofinnovation and how dissemination is taken care of. For instance, the utilization of automatons for conveyances to convey takaful records could cause property harm and substantial damage in this manner raising risk concerns. Guideline confinement encroachment by utilization of automatons could be expensive in administrator's activities; moreover, the guidelines on automatons are as yet developing (Hassan & Salman, 2021).

The effect of innovation advancements reaches out past the takaful worth chain itself to the entire takaful reverberation framework. The blend of enormous information and progressed examination is reshaping the takaful business from endorsing, claims and promoting by concocting new itemsand dispersion channels.

Risk from Huge Tech organizations, for example, Google, Facebook, Apple and Amazon have expanded the extent of the administrator's concern, in light of the fact that these Huge Tech are as of now offering protection items through their sites. Takaful industry should tie up with enormoustech organizations to sell their items through their sites. Since

these organizations have profound information and involvement in innovation, likewise increased nice notoriety as they have demonstrated records of giving astounding administration to their clients and have immense reach all around. In the present period clients will like to manage innovation applications and purchase takaful items through the web, as opposed to meeting with takaful administrators or intermediaries (Ali et al., 2019).

The takaful business all in all is presently confronting new difficulties and particularly with innovative improvement and its effect on conveyance strategies. The manner in which administrators and purchasers collaborate are evolving. The business associations approach generous information which is profitable in encouraging the business to all the more likely comprehend client's needs. Along these lines, utilization of computerized innovation isn't just another region to concentrate on, yet it is another method for working together. The Business is likewise deprived to modernize and differentiate takaful items and have increasingly creative items accessible in the business so it can likewise expand the entrance rate and piece of the pie of the part (Muhamat et al., 2022).

The digital revolution offers new open doors for development and changes to existing takaful models, and subsequently, it is disturbing the dissemination channels set up. Computerized channels are influencing every utilitarian territory of the worth chain in the takaful business, incorporating correspondence with clients, providers, representatives.

Shariah Concern for Takaful Operators in Order to Jump on The Band Wagon of Fintech Insurers

Todorof (2018) contended that Islamic fund is situated in convention and unequivocally associated with the remedies and bans contained in Shariah law. Such a perusing of Islamic fund is commonly uncontested among scholars. In spite of that notwithstanding, and even before FinTech had turned out to be omnipresent, Islamic fund has been touted to offer inventive monetary answers for an under-served advertise (Remli et al., 2013). As a matter of fact, the arrangements alluded to were in no way, shape or form FinTech arrangements; still, this part of Shariah is relevant to how rapidly Islamic law can retain advancements. By embracing FinTech, Shariah account can stay current for its more youthful clients, a significant number of whom, because of the particular idea of FinTech, have just been presented to the FinTech-related improvements and venture potential outcomes. Albeit most FinTech instruments are adaptable enough to adjust to the requirements of the Shariah advertise, it has been proposed that probably the most appropriate among them are P2P loaning and Robo guidance.

The examination of Shariah-agreeable P2P loaning recommends that parts of it, for example, swarm subsidizing, settlement and portable wallet are especially proper for the necessities of a major piece of the populace in Islamic nations. It gives the individuals who are let well enough alone for the likelihood to save money with a customary credit establishment the capacity to takepart in monetary exchanges, pay their bills or send cash to another country, to give some examples. Besides, P2P loaning may help close or limited the enormous credit hole existing in Muslim nations, save a greater amount of the neighborhood cash inside the nearby budgetary market and enable neighborhood banks to create more benefit at a value, which will be lower for all partners (Billah & Billah, 2019).

This paper is centered uniquely around P2P loaning in the Shariah setting, it ought not be presumed this is the single FinTech empowered item reasonable for clients wishing to bank in accordance with Shariah law. FinTech could possibly give various chances to banking professionals and clients that go outside the circle of P2P. For instance, innovation can offer promptly accessible institutionalized contracts (reducing the dangers connected to certain items). To wrap things up, the impartiality of FinTech is one of its appealing perspectives as creation of Islamic money system progressively current for its clients. Besides, money

related advancements can be connected and used with a similar achievement in ordinary and Shariah - consistent settings. To this end, Islamic fund specialists are at freedom to pick which FinTech components to fuse or create in their training so as to expand their productivityand incorporation while staying consistent with the estimations of Islam.

Membership No SPoF RestFul No SPoT Peers in Blockchain **Takaful Application** Network Orderer SDK 1 Proposal Endorser 3 Relay Order TXs in a Committer batch according keys to consensus Ledger 4 Batch **Events** 2 Submit Transaction Chaincode Hyperledger Fabric state

Figure 1. Generic Blockchain Takaful-HyperLedger Fabric Network

Source: Abdeen et al., 2019

Takaful industry and Blockchain

In accordance with Islamic law, the organization offering Takaful services has primary responsibility for maintaining, administering, and investigating Takaful money. In order to be termed shari'ah compliant, which is fundamental to a Takaful plan and highly desired by the vast majority of users, an insurance scheme must adhere to certain requirements. That's why it's important to have a technologically based framework to ensure that Takaful providers are following Islamic law while offering their services. A consumer-friendly structure for verifying these services and ensuring the integrity of the Takaful system is essential. In this context, the Kingdom of Saudi Arabia used Blockchain technology across its numerous sectors for better, more unified information flow (Syed et al., 2019). Blockchain is gaining popularity in because it has several advantages over the status quo that traditional systems. Among these features are openness, reliability, the availability of resources, effectiveness, the availability, and the stability of assets through the ledger (Abdeen et al.,2019). Blockchain offers an immutable public ledger, as seen in Fig. 1, to establish transparency in the ledger.

Recommendation

The operators ought to be strong enough to adjust and overhaul their advancements so as to stay aware of the refreshed projects and programming applications. The fitting technique for accomplishing this refined undertaking is to appoint a specialist group from the official administration and liaise with the Main Hazard Official so as to comprehend and deal with the related dangers and suggestions. The group should devise a point-by-point guide or plan and, furthermore, ought to be enabled with a reasonable order from the president and the board. Meanwhile, administrators, as of now, approach information through businesses and through their entrances. Depending on how many of their customers lean towards electronic dealings rather than customer confronting conditions,

they can take advantage of their present innovation access to promote their dealings with their customers. Disruptors truly are support that must not be viewed as a hardship by the protection business, in any case, rather than as a chance to connect the present hole while simultaneously gaining by structuring a more grounded association with their business channels to augment their client base and profit and setting up imaginative conveyance channels that oblige their clients.

Moreover, on the grounds that a few administrators don't have their very own immediate deal power as they have generally utilized operators and agents to sell their items, innovation disruptors ought to be viewed as impetus to fortify their business relationship through financing for financiers to overhaul their frameworks to keep adjusting and dispersing items through new and old means to customers for them. Associations referenced would be beneficial to the two gatherings since intermediaries have solid associations with the customers and are a precious asset in hazarding the executives to keep protecting the customers' money-related prosperity and warding off liabilities. In this context, I can recommend the following for the incumbent takaful companies:

- a. Invest in new businesses and make sure that the business model you choose is appropriate in terms of the product, the distribution channels, and the customer service it provides.
- b. Forming strategic alliances with newly established companies and launching pilot programs to improve the operational efficiency and effectiveness of their existing business models.
- c. Make use of innovation labs and accelerators that are already present within insurance businesses in order to modernize their underlying infrastructure, procedures, distribution channels, and claims-handling processes.
- d. Reach out to new subsets of clients and promote new distribution channels by entering into partnerships with major technology providers like Google, Facebook, Apple, and Amazon.
- e. Making an effort to leave less of a mark on the earth by shifting away from the traditional method of document printing and towards one that relies on technology. This shift will have an effect on the number of trees cut down because of paper use.
- f. Advocating with regulators to amend rules that require paper pink card printouts in order to conserve paper and change them so that they can be included into digital systems.

Conclusion

Taking everything into account, innovation developments are digging in for the long haul, and the industry is ready to influence advantageous methods by which it will oblige the difficult occasions ahead while it keeps on working together. A dominant part of the takaful administrators in the business will keep on actualizing new innovations in their blend to stay aggressive while conveying it through new and old methods. Be that as it may, the financier's business may contract sooner rather than later for specific classes of takaful business, for example, engine, property, and obligation, therapeutic, life, and individual mishap takaful, as the innovation advancements will make direct contact with the takaful organizations. In like manner, the representative's job will be restricted to doing explicit classes of business, for example, avionics, vitality, marine, and aviation takaful, on the grounds that these classes of business require qualified specialized aptitudes and that it will be hard to sell such items on the web. Further, the agents may center on giving danger-related advice to their clients and ensuring that hazard profiles are coordinated and put in their expected hazard markets. Controllers will keep on playing to get up to speed, and this

factor may turn into a test for new participants as laws will presumably make it difficult for them to meet MCTs, and hence they will most likely be unable to work in the business for long.

Mergers and acquisitions may experience valuations, and new administrative orders could see bigger protection firms denied mergers by government bodies because of the requirement for there to be an unmistakable line of where one association begins and where different finishes, for example, huge IT firms and safety net providers. All things considered, mentorship, apprenticeship, and preparation must be used to revive the workforce after the old age exit, and administrators should grasp the radical and steady innovation advancements to improve their takaful items and investigate new appropriation directions so as to have the option to endure and beat the future difficulties.

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